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State Regulation of

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Public Service Corporations in the City of New York

N.Y. (State)
WORK OF A PUBLIC SERVICE COMMISSION FOR
THE FIRST DISTRICT, 1907 TO 1911,
IN SUPERVISING

Subways

Elevated Roads

Street Surface Railroads

Steam Railroads

Carrying 1,600,000,000 pas-
sengers and collecting from the
public \$77,943,772 in a year.

Gas Companies

Electric Companies

Selling \$31,843,272 worth of
gas, and \$25,382,823 worth of
electricity in a year.

By JAMES BLAINE WALKER

Assistant Secretary

Public Service Commission for First District

NO. 154 NASSAU STREET

NEW YORK CITY

September 1, 1911.

INTRODUCTORY SUMMARY

IN the four years following the creation of the Public Service Commission in 1907, the following changes and improvements have been made in the service and property of public service corporations in New York City and on the city's rapid transit lines:

Transportation Lines.

More than 5,000 complaints have been received and investigated by the Commission.

Traffic in the subway has grown from an average of 456,000 passengers per day to an average of 758,000 passengers per day.

Revenue car mileage has increased from 37,184,940 to 57,110,868.

Side doors have been placed in all cars used in the express service of the subway, and have been ordered placed in all local cars.

Subway express trains have been increased from eight cars to ten cars each, and local trains from five cars to six cars each.

Rush hour service in the subway has been increased from 18,600 seats per hour to 26,400 seats per hour.

On the Street Surface Lines.

All cars have been overhauled and repaired and new cars purchased at an expense estimated at from \$12,000,000 to \$15,000,000.

Life-saving fenders and wheelguards have been installed on all surface cars at an expense of between \$300,000 and \$400,000.

Number of persons killed on all transportation lines has decreased from 500 in the fiscal year 1907-1908 to 334 in the fiscal year 1910-1911.

Number of persons killed on street surface railways has decreased from 303 in 1907-8, to 169 in 1910-11.

Total number of revenue passengers carried by street railroads (including elevated and subways) has increased from 1,315,381,388 to 1,600,000,000.

Surface car traffic (including Brooklyn elevated roads) has increased from 866,093,504 revenue passengers in 1907 to 971,845,912 in 1911—an increase from a daily average of 2,372,852 to 2,662,584.

Abandoned tracks in many streets of the city are being removed.

Transfer privileges between intersecting surface car lines in Manhattan and The Bronx, which were cut off after the Metropolitan Street Railway system went into bankruptcy, have been ordered restored at 151 points.

An experimental five-cent fare to and from Coney Island during certain hours of the day has been established between August 1st and October 1st.

Elevated Railroads (Manhattan and The Bronx).

Total number of revenue passengers carried has increased from 282,924,273 to 301,449,292.

Revenue car miles operated have increased from 61,607,830 to 66,220,938.

The average daily number of passengers has increased from 775,133 to 825,886.

Rush hour service has increased as follows: On the Third Avenue line, from 11,900 seats to 14,700 seats per hour; on the Sixth Avenue line from 9,000 seats to 15,750 seats per hour; on the Second Avenue line, from 7,000 seats to 10,500 seats per hour; on the Ninth Avenue line (express service) from 5,950 seats to 7,000 seats per hour.

A new station has been erected at 180th Street on the Third Avenue line; a new escalator at 125th Street on the Ninth Avenue line, and several new stairways have been built.

Regulations for the maintenance of comfortable temperature in the cars in the subway, on the elevated and on surface car lines have been established.

A certificate has been issued, but not yet accepted by the company, authorizing the Manhattan Railway Company to third track the Second, Third and Ninth Avenue elevated lines.

A certificate has been issued, but not yet accepted by the company, granting the Interborough Rapid Transit Company the right to extend its elevated lines up Jerome Avenue, out Webster Avenue, Gun Hill Road and White Plains Road to 241st Street, and from the Second Avenue line to and across Queensboro Bridge.

Grade Crossings.

The Commission has obtained from the Legislature appropriations aggregating \$500,000 as the state's one-quarter of the expense

of eliminating grade crossings in Greater New York. Under these appropriations the Commission has ordered eliminated dangerous grade crossings of the Long Island Railroad in Flushing at an expense of \$1,100,000; has ordered the elimination of grade crossings in Staten Island at an expense of about \$200,000; has begun proceedings looking to the elimination of additional grade crossings on the Long Island Railroad to cost about \$1,000,000.

Gas and Electric Companies.

The furnishing of breakdown service to consumers of electric current has been restored.

The eighty-cent gas law has been upheld by the courts and put into effect.

The New York Edison and allied companies have reduced their rates, effecting a saving to their consumers which is estimated at \$1,250,000 per annum.

Electric contracts have been simplified and their terms ordered published.

Uniform systems of accounts and uniform forms for annual and other reports have been established, not only for gas and electric companies, but also for all transportation corporations under the jurisdiction of the Commission.

The Commission has made 1,378,627 tests of gas meters. In many cases where meters were found fast the companies have made rebates to the consumers.

Gas and electric rates in the territory served by the Queens Borough Gas and Electric Company have been reduced from \$1.30 per thousand for gas, and 15 cents per kilowatt hour for electricity to \$1.20 for gas in 1911 and \$1.15 in 1912, and to 13 cents per kilowatt hour for electricity in 1911 and 1912.

Approval of Security Issues.

Out of applications by public service companies for permission to issue a total of \$307,824,940 in new securities, the Commission has approved the issue of \$89,153,219. Applications aggregating \$68,851,500 are still pending.

Traction Investigations.

The Commission has conducted investigations into the affairs of all street railroad companies in the City of New York. The Interborough-Metropolitan investigation, held in 1907, disclosed many abuses, a repetition of which has been guarded against by the enactment of the Public Service Commissions Law.

Appraisals of the physical value of the Brooklyn Rapid Transit system, the Third Avenue Railroad Company, the Metropolitan Street Railway Company, the Queens Borough Gas and Electric Company, and the Brooklyn Borough Gas Company have been made by the Commission.

Rapid Transit Work.

The Brooklyn extension and the Van Cortlandt Park extension of the existing subway have been completed and opened to traffic.

Permanent improvements to the subway, including the lengthening of station platforms, have been made at a cost of more than \$3,000,000.

New stations in the subway have been built at Zoological Park and 191st Street, an escalator installed at 177th Street, new elevators at 181st Street, and many new stairways have been built and old ones widened.

The Brooklyn loop subway to connect the East River bridges has been built, with the exception of one section which is approaching completion. The cost of this work will be about \$10,000,000.

Contracts for the Fourth Avenue subway in Brooklyn, running from the Brooklyn end of the Manhattan Bridge, through Flatbush Avenue extension, Fulton Street, Ashland Place and Fourth Avenue to Forty-third Street, Brooklyn—a four-track subway, four miles in length—have been let, and the work is five-eighths completed. The contract price is nearly \$16,000,000.

The Commission has made plans for the Triborough subway to connect the boroughs of Manhattan, The Bronx and Brooklyn, a system covering 47 miles of road and 144 miles of single track, and to cost about \$147,500,000. It has already awarded contracts for six sections of this line, and construction work is in actual progress in Lexington Avenue, Manhattan.

The Commission has granted the Hudson and Manhattan Railroad Company the right to extend its tunnel system from 33d Street and Sixth Avenue to the Grand Central Station at 42d Street and Lexington Avenue. This work will cost about \$5,000,000.

THE COMMISSION

ON July 1, 1907, the two Public Service Commissions created by the Legislature on the recommendation of Hon. Chas. E. Hughes, then Governor, entered upon their official duties. The Commissions, therefore, have been in existence for more than four years. In the succeeding pages will be found a brief review of the work done by the Commission for the First District, whose jurisdiction is confined to the City of New York, including a glance at some of the graver problems encountered and the more important results achieved in carrying out the Hughes policy of state regulation of corporations performing public service under public franchises.

To each Commission the Legislature delegated broad powers for the regulation and control of the corporations under their jurisdiction, which include principally railroads, street railroads, gas, electric light, heat and power, express and car companies. The Commission for the First District also was invested with the powers of the Board of Rapid Transit Railroad Commissioners to lay out and build rapid transit lines in New York City. By a later enactment, telegraph and telephone companies were added to the list of corporations under the jurisdiction of the Commission for the Second District.

Each Commission is composed of five Commissioners, appointed by the Governor and confirmed by the State Senate, who serve five years and receive a salary of \$15,000 per year each. The salaries and expenses of the Commission for the Second District and its employees are paid by the state of New York. It has jurisdiction in all parts of the state outside of Greater New York.

In the First District the state pays the salaries of the Commissioners, the salary of the Commission's Counsel, \$10,000 a year, and the salary of the Commission's Secretary, \$6,000 a year. All other expenses of the First District Commission are paid by the City of New York.

The members, counsel and secretary of the two Commissions are at the present time (September, 1911) as follows:

Public Service Commission for the First District.

William R. Willcox, Chairman
William McCarroll John E. Eustis
Milo R. Maltbie, J. Sergeant Cram
Commissioners.
George S. Coleman, Counsel.
Travis H. Whitney, Secretary.

Public Service Commission for the Second District.

Frank W. Stevens, Chairman
Jas. E. Sague Martin S. Decker
John B. Olmsted Winfield A. Huppuch
Commissioners.
Ledyard P. Hale, Counsel.
John S. Kennedy, Secretary.

FIELD OF THE FIRST DISTRICT COMMISSION

THE work of the Public Service Commission for the First District falls under two general heads:

1. The supervision of public service corporations, chiefly railroads, street railroads, gas and electric light, heat and power companies under the PUBLIC SERVICE COMMISSIONS LAW.
2. The laying out, building and leasing of rapid transit lines, subject to the approval of the Board of Estimate and Apportionment, under the RAPID TRANSIT ACT.

REGULATION WORK.

In supervising the finances and regulating the operation of public service corporations, the Commission for the First District performs a most important work in the interest of the people of New York City. It investigates and adjusts complaints against transportation companies, gas and electric light companies, thus bringing about better relations between such companies and those whom they serve. If residents of a certain section feel that their transportation lines do not give them the service they should have, they complain to the Commission, and, if their complaint is well founded, bring about the issuance of an order for an increase in service. If another section

is deprived of gas or electric light service to which it is legally entitled, the Commission can enforce the extension of such service.

If a gas consumer believes that the company is overcharging him, he may complain to the Commission, which has power to test his meter and, if it is found defective, substitute another which has passed the inspection of the Commission. In many cases where overcharges have been made by reason of fast meters, the gas companies voluntarily make rebates to the consumers of overcharges.

If rates of fare on street railroads are too high, if companies do not give needed transfer privileges, if the prices charged for gas and electric current are deemed excessive, complaints to the Commission bring about a lowering of the rates or an extension of transfer privileges whenever it can be shown that such changes are necessary in the public interest and not unfair to the corporation. The Commission may also, on its own motion, order improvements in service or equipment and bring about needed reforms.

Another important function of the Commission is to approve or disapprove proposed issues of securities by corporations under its jurisdiction. In this way, the stock and bond issues of such corporations are subject to careful examination and are not permitted unless the Commission is satisfied that there is ample value behind them. The Commission also prescribes the methods by which companies shall keep their accounts and the forms in which they shall make periodical reports. This assures publicity of important details of management and operation.

The Commission also has power under the Railroad Law to compel the elimination of grade crossings of railroads within the limitations allowed by appropriations made for the purpose, and is gradually abolishing the most dangerous of such crossings. Where appropriations are lacking, the Commission may order, and it has ordered, railroad companies to safeguard such crossings by the erection of gates or other protective devices.

HOW COMPLAINTS ARE HANDLED.

Complaints against public service companies are handled in two ways by the Commission—formally and informally.

1. *The informal method.*—Complaints as soon as received are transmitted to the companies affected, with a letter from the Commission asking the company in question what it will do to satisfy the complaint. In many cases the company immediately concedes

the change requested by the complainant and notifies the Commission accordingly. The complainant is then notified by the Commission that his complaint has been satisfied.

In matters of greater importance, the Commission, through its transportation department or its bureau of gas and electricity, has an investigation made to determine whether the complaint is well grounded. If the investigation shows that it is, the result is communicated to the company with a request that steps be taken to remove the cause of the complaint. It is not unusual for the Commission's representatives to confer with the company's representatives for the purpose of bringing about an adjustment of the matters complained of, and often these conferences result in an arrangement mutually satisfactory to the company and the complainant.

2. *The formal method.*—If by the informal method the Commission fails to bring about a satisfaction of the complaint and the complainant insists on pressing it, a formal proceeding is begun. A complaint order, to which is attached a copy of the complaint, is served upon the company, which is usually given ten days to answer. When the company's answer is received, it is transmitted to the complainant, and if he deems it unsatisfactory, the Commission orders hearings upon the complaint. At these hearings, both the complainant and the company give evidence, both sides often appearing by counsel, and the matters complained of are threshed out in public. After the evidence is in, arguments are made, the Commission takes the matter under advisement, and renders a decision.

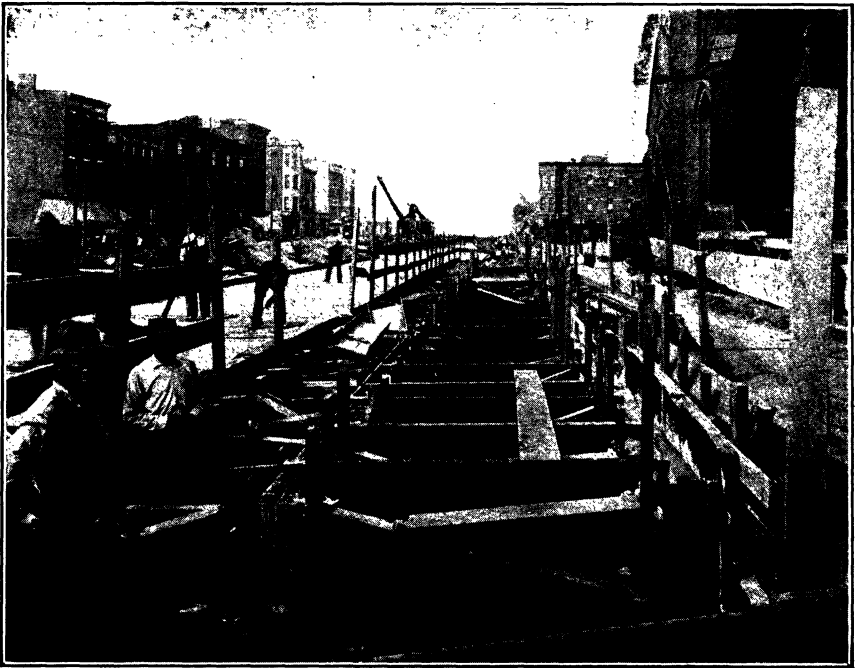
For the three years 1908, 1909 and 1910, the Commission received and handled informally 5207 complaints against transportation companies. In addition, there have been handled an average of 500 informal complaints each year against gas and electric companies, other than complaints as to meters. For the year 1910 the Commission conducted 60 formal proceedings on its own motion, 11 formal proceedings on complaint, and 36 formal proceedings on applications of companies, making a total of 107 for the year. In the conduct of these proceedings, 427 hearings were held. The number of formal cases handled from July 1, 1907, to the end of the year 1910, is shown in the following summary:

	1907	1908	1909	1910
On motion of Commission.....	46	142	74	60
On complaint	76	106	30	11
On application of company.....	2	33	50	36
Total	124	281	154	107
Number of hearings.....	252	751	504	427

PLANNING AND BUILDING SUBWAYS.

Rapid transit work takes more than three-quarters of the time of the Commission and is responsible for more than sixty per cent of its expenses. Out of about \$1,000,000 expended each year, approximately \$650,000 goes to rapid transit work. The supervision and regulation of public service corporations costs from \$350,000 to \$400,000 a year. The members of the Commission do not engage in private business, but devote all their time to the work of the Commission.

Owing to the vast scope of the work, a large professional and clerical staff is needed, and the Commission's employees number between 400 and 600 persons, according to the amount of rapid transit work in hand. Experts are needed to cope with the problems presented, and the departments are in charge of men thoroughly experienced in their respective callings. With their advice and assistance, the Commission is able to meet the experts of the corporations under its jurisdiction on common ground.



Subway Construction.—Section of Fourth Avenue Subway at 9th Street, Brooklyn

CORPORATIONS SUBJECT TO REGULATION

THE various public service corporations under the supervision of the Public Service Commission for the First District form a large part of the corporate activities of the American metropolis and come into intimate contact with the five million people who compose its population.

These companies embrace street railroads, steam railroads, one stage coach company, gas companies, electric companies, electric conduit companies, gas-electric companies, express companies and holding companies. While the total number of such companies is only 125, with 58 others as to which the Commission has jurisdiction in special matters, the combined capitalization of 97 companies reporting directly to the Commission for the First District, and excluding express companies and steam railroads operating both within and without the district, that is, their capital stock and outstanding funded debt, amounted to \$1,124,342,471 on June 30, 1911.

To these companies, the people of the City of New York paid in fares for transportation and charges for gas and electricity during the year ended June 30, 1911, a total of \$135,169,867—a per capita contribution of \$28.35. Of this total, \$77,943,772 went to the transportation companies, \$31,843,272 to the gas companies and \$25,382,823 to the electric companies.

On the per capita basis, therefore, every man, woman and child of fare-paying age, during the fiscal year 1910-11, paid to the transportation companies in Greater New York \$16.35; to the gas companies \$6.68; and to the electric light companies \$5.32 apiece. In the amount paid to the gas and electric companies, there is included the charge for public lighting. Excluding this charge, the per capita tax upon the citizens during the year for gas was \$6.51, and for electricity, \$4.75.

The following tables, prepared by the Commission's Bureau of Statistics and Accounts, show the number and character of corporations under the jurisdiction of the Commission for the First District, the amounts paid by the public for transportation, gas and electricity and the capitalization of such corporations:

NUMBER OF CORPORATIONS SUPERVISED BY THE PUBLIC SERVICE COMMISSION, FIRST DISTRICT, 1911.

As to capitalization, accounts, etc.*

	Operating companies.	Lessor companies.	Inchoate, dormant, etc.	Total.	As to special matters.**	Total.
Street railways	35	23	23	81	1	82
Steam railroads	2	4	5	11	21	32
Stage coach companies	1	—	—	1	—	1
Gas companies	16	1	—	17	3	20
Electric companies	6	3	1	10	5	15
Electric conduit companies	2	—	—	2	—	2
Gas-electric companies	3	—	—	3	—	3
Express companies	—	—	—	—	13	13
Holding companies	—	—	—	—	15	15
Totals	65	31	29	125	58	183

*Companies filing annual and other periodical reports.

**Listed in Form 2194. Steam railroads like the Long Island and New York Central, not situated exclusively within the City of New York, are under the jurisdiction of the Public Service Commission of the Second District, Albany, N. Y., except as to accidents, service, etc., within the First District.

WHAT THE PUBLIC PAYS CORPORATIONS FOR SERVICE IN NEW YORK CITY.

Transportation.			
Transportation revenue in fiscal year 1910 of—			Per capita.
State Island steam railroads.....	\$ 943,090		\$.1978
Subway	13,443,805		2.8202
Hudson tunnels	2,142,008		.4493
Elevated railways	22,854,043		4.7943
Surface car lines	37,944,753		7.9601
Stage coach line	616,073		.1292
Total	\$77,943,772		\$16.35
Light and Power.			
Gas for light, heat, etc.—			
Public lighting, etc.....	\$ 803,120		\$.1685
General consumers	31,040,152		6.5116
Total	\$31,843,272		\$6.68
Electric light, heat and power—			
Public lighting, etc.....	\$ 2,724,817		\$.5716
General consumers	22,658,006		4.7532
Total	\$25,382,823		\$5.32
Grand total	\$135,169,867		\$28.35
Supervision by Public Service Commission.....	\$377,000		.08

NOTE—A few companies operate in counties adjacent to New York City, but such outside business is very small except in the case of the Hudson tunnels, where approximately one-half of the entire business shown above arises in New Jersey.

CAPITALIZATION OF OPERATING AND LESSOR CORPORATIONS REGULATED BY PUBLIC SERVICE COMMISSION, FIRST DISTRICT.

	Number of companies.	Capital stocks and funded debt outstanding.
Street and electric railways.....	58	\$729,085,480
Steam railroads	6	15,743,460
Stage coach company.....	1	50,000
Gas companies	17	211,030,650
Gas-electric companies	3	5,548,500
Electric light and power companies.....	10	136,135,372
Electric conduit companies.....	2	26,749,000
Total	97	\$1,124,342,471

NOTE—Securities only nominally issued and securities issued but reacquired and held by or on behalf of the company issuing same are not treated as outstanding; but securities held by another company are treated as outstanding in the foregoing table, which does not purport to show the amount of securities in the hands of the public. The subway is treated as a railroad and the City of New York as a street railway corporation with respect to bonds issued to construct the subway.

It is interesting to note the proportion of the annual payment which goes to the different classes of transportation companies. For instance, the per capita payment to the subway is \$2.82 and a fraction, to the elevated railroads \$4.79 and a fraction, and to the surface car lines \$7.96 and a fraction. In other words, out of a total of \$77,943,772 paid by the citizens for transportation, \$13,443,805 went to the subways, \$22,854,043 to the elevated roads and \$37,944,753 to the surface car lines.

The cost of regulating these large corporations by the state through the Public Service Commission was about \$377,000 for the year—a per capita charge of 8 cents. While the people of the city pay \$28.35 apiece to the transportation, gas and electric companies during the year, they are called upon to pay but 8 cents apiece for the regulation of these corporations by public authority.

REGULATION OF TRANSPORTATION LINES

MUCH of the regulative work of the Commission is done in the field of city transportation, the means for which are provided by subways, elevated lines, surface car lines and motor buses. An idea of the value of the Commission's work in this direction may be gained from what has been accomplished on the transportation lines of New York City during its four years of existence.

THE CITY SUBWAY

The best and unquestionably the most famous transportation system in New York City is the subway. This is a rapid transit railroad running mostly underneath the streets of the city and having separate sets of tracks for express and local service. Built to carry 400,000 passengers per day, it is at times called upon to transport more than 1,000,000 passengers per day, and its traffic is still increasing. Various improvements have been made, some by order of the Commission and some by the voluntary action of the Interborough Rapid Transit Company, the lessee of the road, to increase its capacity. The limit of that capacity has not yet been reached, but it is in sight, and hence the City of New York, which owns the subway, has started upon the building of a new system designed to care for future traffic.

When the Commission came into existence the subway consisted of 22.12 miles of road and 72.49 miles of track. Extensions during

the four years since have brought the road mileage up to 26.33 and the track mileage up to 85.31. The number of cars used in the subway has increased from 794 in 1907 to 1,129 in 1911. Of the cars now in use, 778 are center side-door express cars and 351 local cars with end side doors only. The latter will soon be converted into center side-door equipment, and within one year it is expected that all cars operated in the subway will be of this type.

The annual revenue car mileage has increased from 37,184,940 in 1907 to 57,110,868 in 1911. The number of revenue passengers carried has increased from 166,363,611 for the year ended June 30, 1907, to 276,704,796 for the year ended June 30, 1911—an increase of more than one hundred and ten millions in four years. The average daily number of passengers in 1907 was 455,789 and in 1911, 758,093.

The growth of traffic in the subway since it was opened in October, 1904, is said to be unparalleled in the history of urban transportation lines. In 1905, the first full year of operation, the subway carried an average of about 250,000 passengers a day. Two years later, in 1907, the average had increased to 455,789, as stated, and in four years more, in 1911, to 758,093. It is a common thing now during the busy season (the winter time) for the subway to carry more than a million passengers a day. The first time the number reached one million was during the Hudson-Fulton Celebration, in October, 1909.

No such tremendous additions to traffic could have been handled if it had not been for the extensions to the subway, improvements in its service, enlargement of trains, the cutting down of headway, the improvement in the signal system and facilitating in every way possible the rapid movement of traffic.

Enlargements and Additions.

Since the Commission came into existence the subway has been extended to Brooklyn under the East River, and the West Side branch in Manhattan, popularly known as the Broadway subway, has been extended from 225th Street, Kingsbridge, to 242d Street, Van Cortlandt Park. Both of these extensions added materially to the traffic. The company which defrayed the larger part of the expense of building the Brooklyn extension estimates its cost at about \$14,000,000. The Van Cortlandt Park extension cost \$825,000. Permanent improvements to the whole subway, including lines in Manhattan, Brooklyn and The Bronx, made since the Commission came into existence, have cost the City of New York \$3,485,050.

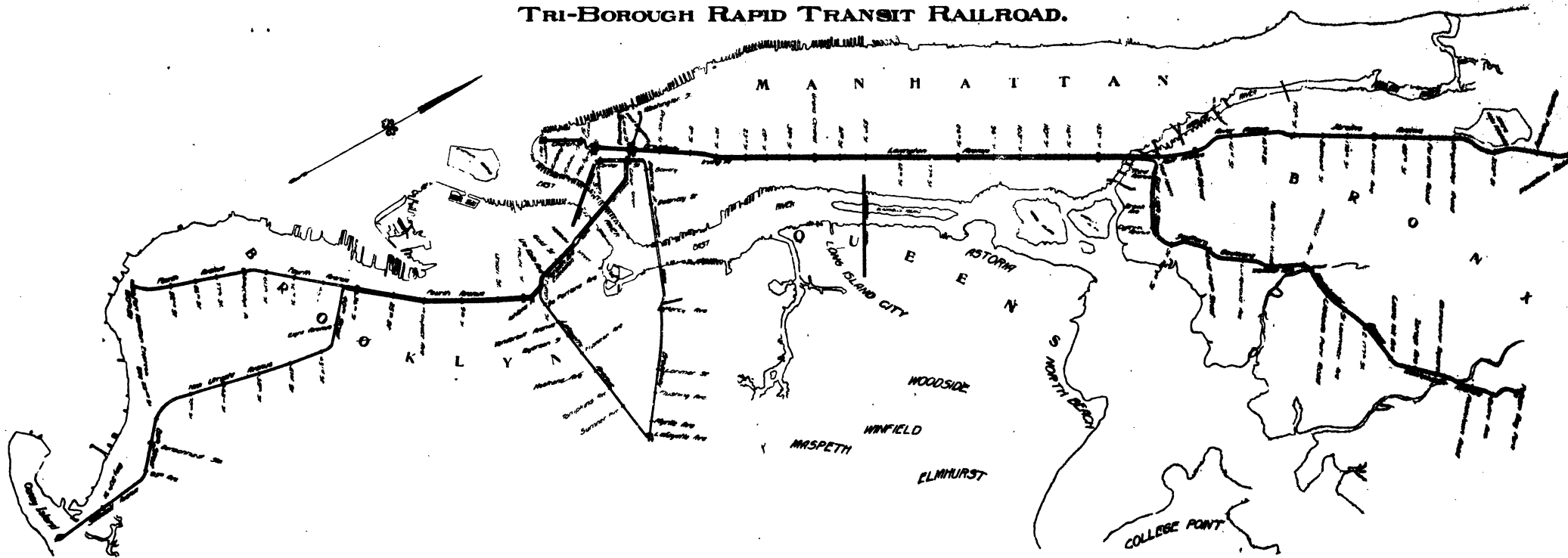
Most of the improvements were ordered by the Commission. The most important was the lengthening of station platforms throughout the system. When the Commission came into office these platforms, in the main, allowed of the operation of express trains of not more than eight cars each and local trains of not more than five cars each. By the extensions, which cost \$1,500,000, it is now possible to operate ten-car express trains and six-car local trains. This improvement, with new entrances and exits, it is estimated, added 25 per cent to the capacity of the subway.

Other improvements included new stations, new elevators, new stairways, etc. It was found also that the block signal system, originally installed, while it provided adequately for the safety of passengers, placed a limit upon the number of trains which could be operated past stations in a given time. The Commission's engineers devised a plan of speed control signals which, while not affecting the margin of safety, made possible the closer approach of trains to one another, and therefore a more rapid movement past stations. This system was installed and is working satisfactorily.

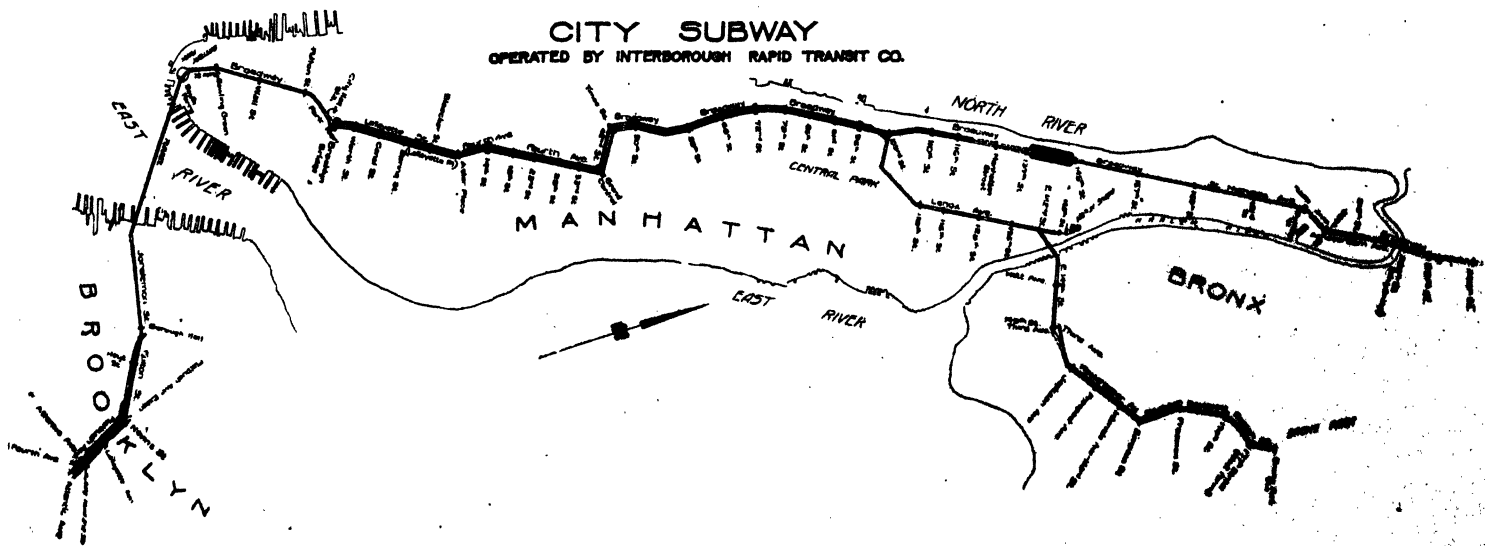


Grand Central Subway Station

TRI-BOROUGH RAPID TRANSIT RAILROAD.



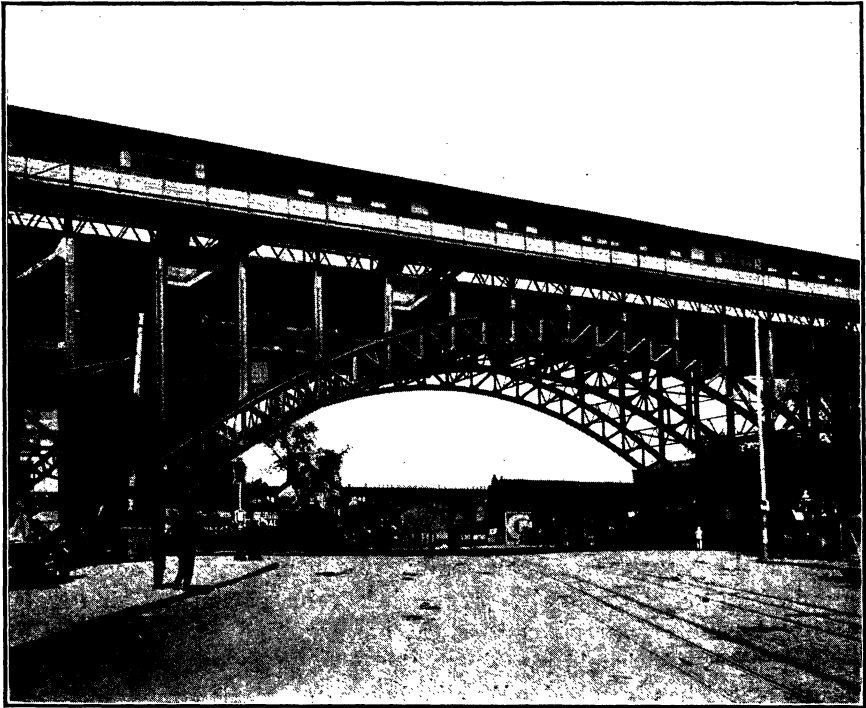
CITY SUBWAY OPERATED BY INTERBOROUGH RAPID TRANSIT CO.



Side Doors in Subway Cars.

Another method of saving time was found in providing more openings in the cars for the entrance and exit of passengers. The original equipment of the subway consisted of cars with doors at each end, and these so narrow that two persons could not pass through them abreast. The company itself soon discovered that the doorways were too narrow and widened them so far as the construction of the cars would permit. The Commission, after a series of hearings, ordered the company to put center side doors into the cars used in the express service. This improvement was completed in the early part of 1911 and has worked so well that it is to be extended to the cars used in the local service. It has been found that the center side doors materially lessen the length of stops at stations and thereby permit the passage of more trains past a station in a given time.

The loading and unloading has also been facilitated by the placing of additional guards upon express station platforms. These guards, by opening and closing doors, directing passengers, etc., contribute to the saving of time at stations.



Steel Arch Supporting Elevated Section of Subway at Manhattan Street

Service Greatly Enlarged.

The effect of all these improvements can be seen by comparing the service now given with that of 1907 before the Commission came into office. In the year 1907 express trains in the subway consisted of eight cars each and ran at intervals of two minutes four seconds apart in rush hours. The local trains consisted of five cars each and ran at intervals of two minutes eight seconds in rush hours. This permitted the movement of 29 express trains and 28 local trains per hour, equivalent to 11,600 seats in express trains and 7,000 seats in local trains per hour, or a total of 18,600 seats per hour.

In 1911, after the extensions and improvements noted, express trains consist of ten cars each and follow each other in the rush hours at intervals of one minute 48 seconds; local trains consist of six cars each, operated at intervals of one minute 48 seconds in rush hours. This makes 33 express trains and 33 local trains per hour, an equivalent of 16,500 seats in express trains and 9,900 seats in local trains, making a total of 26,400 seats per hour. This is an increase of 7,800 seats per hour, and as the rush movement covers a period of three hours, the total addition to the capacity of the subway in four years has been 23,400 seats for every rush hour period.

The comfort and safety of the passengers have been further promoted by the introduction of storage battery lamps in the cars, ordered by the Commission after an investigation which showed that the ordinary electric lights were supplied with current from the same wires which feed the motors and furnish power for propulsion. It was thus inevitable that when the power current was shut off by accident or other emergency, the cars would be in darkness. Experience in such accidents showed that darkness added greatly to the alarm of passengers, and it was therefore deemed advisable to have each car supplied with an emergency battery sufficient to supply current for four lamps in each car in case of the sudden lapse of the ordinary lighting current.

The Interborough Rapid Transit Company generally has kept pace with the demands of the times for improvements available in up-to-date practise for promoting the safety and comfort of the passengers and for speedy and safe operation. It has equipped its cars with the Westinghouse electro magnetic brake, which makes possible the stoppage of heavy trains in the minimum space; it has supplied automatic signals, operated by the closing of doors, to notify the motorman when to start, has supplied revolving fans in roofs of cars which add greatly to the comfort of passengers in hot weather, and has installed a Westinghouse automatic coupling, which

makes the air connection at the same time that the coupling is made. It has also materially increased its power stations, and recently substituted 32-candle-power Tungsten lamps for the 16-candle-power carbon film burners formerly in use for lighting cars.

What is said to be the longest ride for a nickel available any place in the world is possible in this subway. A passenger can enter the subway at the Atlantic Avenue station in Brooklyn, ride through the heart of Brooklyn, under the East River, the length of Manhattan and through The Bronx to Van Cortlandt Park or 242d Street, a distance of more than 17 miles, for a single fare and without change of cars, and it takes but one hour to make the trip. From Atlantic Avenue, Brooklyn, under the East River and up the lower part of Manhattan Island to the Brooklyn Bridge station, the subway consists of two tracks. From the Brooklyn Bridge station north to 96th Street, a distance of 6.43 miles, there are four tracks, two for express trains and two for local trains, the express trains stopping only at 14th, 42d, 72d and 96th Streets. North of 96th Street the subway divides into two branches, one continuing up the West Side, known as the Broadway branch, to Van Cortlandt Park or 242d Street; the other extending northerly through Lenox Avenue to Bronx Park or 180th Street. North of 96th Street on each division only two tracks are used for operation, and trains, whether express or local south of 96th Street, make all stops north of that station.

PERMANENT IMPROVEMENTS MADE IN SUBWAY SINCE 1907,

Contract No. 1—Manhattan and The Bronx.

Van Cortlandt Park Extension—	
1 mile, 3-track elevated line, 230th to 242d Street.....	\$ 825,000.00
Zoological Park Station, line extended 375 ft. and station built.....	100,000.00
191st Street Station.....	381,000.00
Bleecker Street Station } Encasing water mains under platforms in concrete....	3,600.00
Spring	

Lengthening of station platforms.....	1,150,000.00
There was also included in the contract for lengthening platforms an additional entrance at 116th Street and Broadway and trainmen's quarters at 137th Street and Broadway.	

Additional entrances have been provided or contracted for at the following stations:		
14th Street	}	Estimated cost\$ 283,000.00
Grand Central		
103d Street		
110th Street and Broadway		
149th Street		
Times Square Station, change in entrances due to widening 42d Street.....		15,000.00

Other changes and additions have been made to the following stations:	
Grand Central, widening stairway.....	\$ 1,700.00
149th Street, new stairway southeast corner.....	13,400.00
72d Street, new stairway, east platform.....	7,000.00
145th Street and Broadway, new stairway east platform.....	22,000.00
137th Street and Broadway, new stairway east platform.....	5,300.00
157th Street and Broadway, widening east stairway.....	6,700.00
177th Street, escalator installed.....	13,500.00
181st Street, West Side line, new entrance and elevators.....	160,000.00
168th Street, 181st Street, Mott Avenue, glass enclosures for elevator shafts..	2,800.00
96th Street, grating over station.....	750.00

Total\$2,990,750.00

Contract No. 2—Brooklyn Extension.

Lengthening of station platforms.....	\$350,000.00
Bowling Green Station, additional track and platform for shuttle service to Battery Park station	100,000.00
Hoyt Street Station, additional ticket booth.....	300.00
Additional entrances have been provided or contracted for at—	
Fulton Street Station	} Estimated cost
Atlantic Avenue Station	
	44,000.00
Total	<u>\$494,300.00</u>
Grand total	<u>\$3,485,050.00</u>
Other changes and additions, cost of which have been paid for by the Interborough Rapid Transit Company, include:	
Intervale Avenue Station.	
Storage yard at 238th Street.	
Automatic sprinkler system, 137th Street storage yard.	
Replacing non-fireproof track houses and signal towers with fireproof structures throughout the subway.	
Installation of fire line, Harlem River tube.	
Improvements in signal system, including speed control signals.	

McAdoo Tunnel System.

The Hudson and Manhattan Railroad Company operates a system of subways, popularly known as the McAdoo Tunnels, which play an important part in the transportation facilities of New York City. These tunnels connect the business district of Manhattan with the Pennsylvania Railroad, the Lehigh Valley Railroad, the New York, Susquehanna and Western Railroad, the Erie Railroad and the Delaware, Lackawanna and Western Railroad terminals on the Jersey side. There are two sets of two parallel tunnels under the Hudson River, the uptown set leaving Manhattan at Morton Street and the downtown set at Cortlandt Street. Each tunnel is about one mile long.

On the Manhattan side the downtown tunnel terminates in the Hudson Terminal Buildings at Church and Fulton Streets. The uptown tunnel runs into Sixth Avenue and up Sixth Avenue to 33d Street. It is planned to extend this line to the Grand Central Station at 42d Street. The Commission has granted a certificate for this extension.

The total length of road of this system is 7.40 miles, of which 3.64 are in New York and 3.76 in New Jersey. The total single track mileage is 15.58 miles. The total number of passengers carried for the year ending June 30, 1911, was 52,756,434.

STREET SURFACE CAR COMPANIES

TO the surface car lines of the Greater City, commonly known as trolley roads, the Commission has devoted continuous attention. One of its first acts was to conduct an investigation into the condition of the surface car system in Manhattan and The Bronx. This investigation, held in the summer of 1907, disclosed conditions involving over-capitalization, misuse of company funds, neglect of road and equipment leading to serious deterioration, etc., and was followed by the placing of the entire Metropolitan Street Railway system in the hands of receivers. This resulted in the disintegration of the Metropolitan System and in many cases in the appointment of separate receivers for the constituent companies.

At the same time, the Commission, through its engineers, made an examination of the rolling stock and tracks of these companies, and issued sweeping orders for the overhauling and repair of all cars. The receivers of the Metropolitan Street Railway Company and the Third Avenue Railroad Company, the two principal parts of the old system, carried out the orders of the Commission and practically rehabilitated their equipment. Old and worn-out cars were discarded, those susceptible of repair were placed in first-class operating condition and passed the inspection of the Public Service Commission, and the receivers purchased a large number of new and up-to-date cars with approved machinery. Many of these cars were of the pay-as-you-enter type, which are now in almost general use on the Manhattan lines. These repairs and new purchases cost the receivers from \$12,000,000 to \$15,000,000, but they effected a great improvement in the service and the reduction to the minimum of delays formerly caused by defective or worn-out cars.

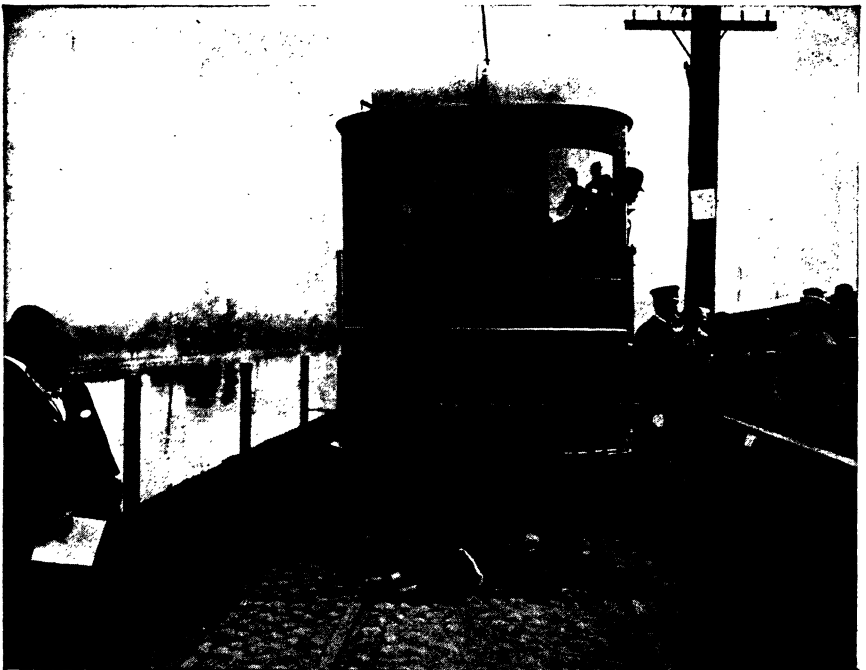
The improvement due to the action of the Commission may be seen from the fact that the daily average of cars run in for repairs for August, 1908, after the orders had been carried out, was only 71, as compared with 352 in October, 1907, prior to the issuance of such orders.

Similar orders were issued to companies operating surface cars in Brooklyn and other boroughs. One of the best illustrations of their effectiveness was seen in the case of a company operating trolley cars over the Brooklyn Bridge. This company, which operated 16 per cent of the cars crossing the bridge, was found to be responsible for 62 per cent of the delays in bridge car service before the repairs were made. After its equipment had been thoroughly overhauled and repaired in compliance with the Commission's order, the company, while still doing 16 per cent of the bridge trolley business, was found to be responsible for only 13 per cent of the delays.

Saving Life.

One of the best illustrations of the value of a regulating board is found in the successful efforts of the Commission to minimize fatal accidents on the surface car lines of the city. Having the power to order improvements in equipment, the Commission, early in its career, turned its attention to the subject of safety devices, impelled thereto by the appalling mortality attending street car accidents. The Public Service Commissions Law requires the railroad companies to report to the Commission all serious accidents, and for the first six months of the Commission's existence, from July 1 to December 31, 1907, reports showed that 288 persons had lost their lives on the railroads and street railroads of the city. That seemed to indicate that nearly 600 persons a year were being killed in order that cars might be operated.

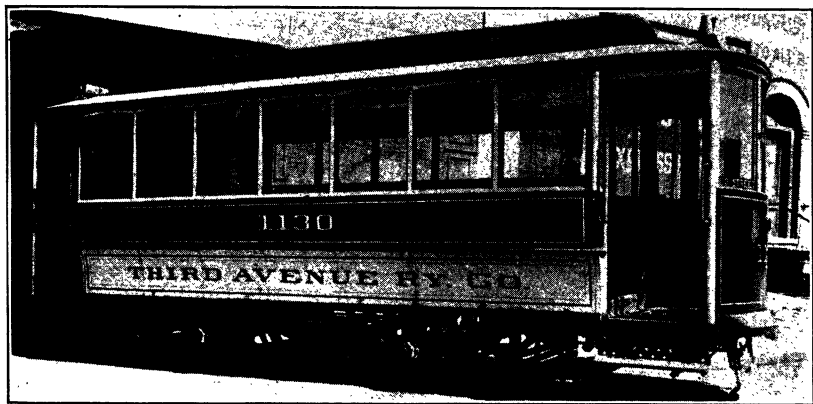
The Commission regarded this as an excessive toll in human life. It appointed a Committee on Safety Devices to investigate and report whether the equipment of the street cars could be so improved as to lessen the number of fatal accidents. After a thorough investiga-



Fender Test with Life-like Dummy

tion, this Committee reached the conclusion that efficient fenders and wheelguards would do much to remedy conditions. There were a large number of such devices upon the market, and, in order to determine their efficiency as life savers, the Committee recommended and the Commission ordered a series of tests. These tests were held in the Fall of 1908, at Schenectady, N. Y., and at Pittsburgh, Pa. Manufacturers of fenders and wheelguards in all parts of the country were invited to submit their devices to these tests, and a large number responded. More than 100 separate devices were submitted, and 67 (38 fenders and 29 wheelguards) were tested.

The tests were made with dummies representing human beings placed in various positions upon the tracks and run down by trolley cars equipped with fenders or wheelguards. The Commission's engineers checked the tests and awarded each device the number of points scored in picking up the dummies.



Storage Battery Car Equipped with Wheelguards

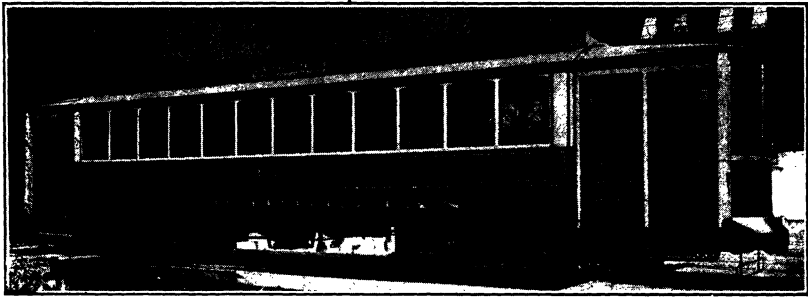
A report was published showing the fenders which had secured 70 per cent and upward in the tests. Later the Commission issued an order to all the street railroad companies in the greater city directing them to equip their cars with fenders or wheelguards, or in some cases both, of types to be approved by the Commission. The railroad operators were not confined to the devices which passed the Schenectady and Pittsburgh tests, but any company could propose a device and, if the Commission found it efficient, it was approved.

These orders were issued mainly in the Spring of 1909, modified or extended from time to time to meet the reasonable demands of the companies, and by the end of the year 1909 had been generally complied with. It was not, however, until toward the close of the year 1910 that all companies completed their equipment. It is estimated that the cost of installing the devices was between \$300,000 and \$400,000.

Falling Off in Fatal Accidents.

Reports of accidents almost immediately showed the beneficial effects of the new fenders and wheelguards. In the fiscal year 1908, when the surface car companies operated either without fenders or wheelguards or with such as were inefficient, 303 persons were killed on such lines. In 1909, during which most of the companies had equipped their cars with such devices, the number killed had dropped to 199, a saving of 104 lives over the previous year. In the year 1910 the number killed was only 152. For the fiscal year 1911 the number killed was 169.

It is not claimed that this saving in life was due entirely to the introduction of efficient fenders and wheelguards. Improvements voluntarily made by the companies or their receivers, the purchase of new cars of improved type, etc., doubtless had their effect, but it is believed by the Commission that the fenders and wheelguards have been the most potent factors in reducing the number of fatal accidents. Numbers of cases are on record where men have been knocked down and run into by the cars and undoubtedly would have been killed had it not been for the effective operation of fenders or wheelguards. In August of this year a policeman, while acting as captain of the Traffic Squad, was run into and knocked down by a Broadway trolley car. The car was equipped with a modern wheelguard, which acted automatically when the policeman was struck. In place of going under the wheels and being ground to death, he was picked up by the wheelguard and carried in safety till the car stopped. His injuries were so slight that he declined the offer of an ambulance and went home without assistance. Two years ago a policeman was killed by being run down by a trolley car which was operated without wheelguards.



Pay-as-You-Enter Car Equipped with Wheelguards



Car Equipped with Projecting Fenders



Car Equipped with Projecting Fenders and Wheelguards

Increase in Service.

As the traffic increases rapidly from year to year, the Commission has endeavored to see that the service provided by the companies shall increase in like proportion. Under the law, it is the duty of the Commission to see that the companies give safe and adequate service. "Adequate service" is rather difficult to define, but the Commission has held that where the company provides a seat for every passenger in the non-rush hours, or rather, a number of seats at least equal to the number of passengers carried during such periods of the day, and where it operates as many cars or trains during the rush hours as the physical limitations of the line will permit, it may be said to give "adequate" service within the meaning of the law. Accordingly, the orders of the Commission have been framed to meet this standard.

That it is not an easy matter for transportation companies to keep their service abreast of the demands is shown by the heavy annual increase in travel. In 1907, the first year of the Commission's existence, the population of New York City was 4,306,995. The number of regular fare passengers carried by the street railroads in that year was 1,315,381,388. This was an average ride per capita of 305.4. With a population of 4,766,883 in 1910, the total number of fare passengers was 1,530,000,000, or an average ride per capita of 320.9. The latest figures, which are for the year ended June 30, 1911, show that the total traffic increased to 1,600,000,000 passengers. These figures show that not only is there a heavy increase in the number of passengers carried, but that the street car habit is growing year by year and that the average citizen now takes thirty more rides a year than he did in 1907, as the number of rides per capita is now 335.6.

The above figures include subway, elevated and surface lines. The surface lines alone (including the Brooklyn elevated roads, the traffic of which is generally counted in with the surface car traffic of the B. R. T. system), increased from 866,093,504 passengers in 1907 to 971,845,912 for the year ended June 30, 1911. In other words, where these roads carried a daily average of 2,372,852 passengers in 1907, they were carrying 2,662,584 passengers as a daily average in 1911.

Increases in road and track mileage, the number of cars used, and the number of car miles operated, show that the service has increased with the travel. Including the subway, the elevated and surface lines, the number of miles of road has increased from 711 in 1907 to 760 in 1911; the number of miles of track has increased

from 1,494 in 1907 to 1,586 in 1911; the number of cars in use, from 9,907 in 1907 to 11,213 in 1911. In 1907 the number of car miles operated by revenue cars was 253,691,744, while in 1911 for the year ended June 30th it was 294,180,000.

Abandoned Tracks.

For years the people of the city have protested against the continuance in the streets of car tracks which were not used. The Public Service Commission took up this grievance in 1909 and 1910 and started the machinery of the law in motion to bring about the removal of abandoned tracks. The Commission prepared a list of such tracks and transmitted it to the Attorney General with the request that he begin proceedings for the forfeiture of the franchises under which such abandoned tracks were built. The Attorney General instituted several suits, and at the same time negotiations were carried on between the Commission and various companies, with the result that the following tracks have been either removed entirely or the companies controlling them have consented to their removal in the near future:

On	From	To
First Avenue	14th Street	Houston Street
Allen Street	Houston Street	Grand Street
Oliver Street	New Bowery	South Street
Pearl Street	New Bowery	Peck Slip
Peck Slip	Pearl Street	South Street
Park Place	West Broadway	Broadway
Thompson Street	Canal Street	4th Street
Wooster Street	Clinton Place	Houston Street
Greene Street	Canal Street	Clinton Place
Church Street	Chambers Street	Duane Street
McDougal Street	4th Street	Clinton Place
Broome Street	Broadway	West Broadway
Sullivan Street	Grand Street	Watts Street
Sullivan Street	Broome Street	3rd Street
Wooster Street	Houston Street	Canal Street
Church Street	Duane Street	Canal Street
86th Street	Amsterdam Avenue	Riverside Drive
Pleasant Avenue	109th Street	110th Street
109th Street	Pleasant Avenue	First Avenue
Twelfth Avenue	42nd Street	34th Street

Several other suits are pending, which will probably result in the removal of many other abandoned tracks in the city.

Transfer Privileges.

Soon after its organization the Commission was confronted with the transfer problem. Following the disintegration of the Metropolitan Street Railway System the privilege of transferring from one street car line to another was greatly curtailed. Prior to the bankruptcy of that system there had been an almost universal exchange of transfers at the various intersections of north and south with east and west car lines. In a few years almost one-half of

these transfer points, which numbered more than 300 in Manhattan and The Bronx, were cut off. There was much dissatisfaction among the patrons of the lines, and in 1908 complaints were made to the Commission asking for the restoration of transfers between the north and south lines and the 59th Street crosstown line.

Acting under a provision of the Public Service Commissions Law, which authorized the Commission to order through routes and joint rates between intersecting lines and to apportion the fares between them, the Commission issued an order for the exchange of transfers at 59th Street and at the intersection of other crosstown lines in a certain zone. These transfers were ordered at a five-cent rate, and the companies contested the order. After opposing it in hearings before the Commission, they took the case into the courts on a writ of certiorari. The Commission claimed that certiorari was not the proper proceeding, and on that issue the case was submitted to the Appellate Division of the Supreme Court, which decided in favor of the companies. This case was never taken higher and was never tried on its merits, as the time limit in the order expired and the Commission obtained the passage of an amendment to the law strengthening the section governing the issue of transfers, which in its original state, the railroad companies claimed, applied to steam railroads, but not to street railroads.

Thereafter another order was issued, directing the companies to establish through routes and joint rates at 59th Street, but without limiting the fare. The Metropolitan Street Railway Company and the Central Park, North and East River Railroad Company (the 59th Street crosstown line) accepted the order and established an 8-cent transfer system, namely, 5 cents for the fare and 3 cents for the transfer. This was approved by the Commission and went into effect in 1910. Much dissatisfaction was expressed over the 8-cent transfer and the means of collecting it, which involved the payment of ten cents by the passenger and a refund of two cents when he left the car. In the Spring of 1911, after numerous complaints, and acting specifically upon a complaint from the Board of Aldermen, the Commission took up the entire question of transfers in Manhattan, and ordered all intersecting lines to restore transfers at 151 points. As transfers on a five-cent fare were already being issued at 168 points, the order for the 151 additional points contemplated the restoration of about all the transfer privileges which were available before the disruption of the Metropolitan System.

The companies accepted this order and submitted to the Commission the proposed establishment of an 8 and 10 cent transfer at

the 151 points; that is, they proposed to charge 3 cents for a single transfer and 5 cents for a double transfer, making 8 cents for the original fare and one transfer and ten cents for the original fare and two transfers. At a hearing held August 15, 1911, the Commission expressed its dissatisfaction with the proposed rates and directed the companies to submit evidence to show whether the proposed 8 and 10 cent transfer rates were reasonable. This proceeding has not yet been terminated, but it is believed that some sort of a general transfer restoration will be accomplished.

Coney Island Ten Cent Fare.

After years of agitation for a five cent fare from Manhattan to Coney Island, the Public Service Commission this year induced the management of the Brooklyn Rapid Transit system, as well as that of the Coney Island and Brooklyn Railroad Company, to put into effect for experimental purposes a round trip rate of ten cents from their Manhattan terminals to Coney Island and return, between the hours of 6 A. M. and 9 A. M. going and 2 P. M. and 4:30 P. M. returning. These rates were made available between August 1 and October 1, 1911, every day except Saturdays, Sundays and legal holidays. If the companies find that the experiment is not too costly, they will probably make the same arrangement in succeeding seasons. On the B. R. T. System the ten-cent rate is available only on the elevated lines. The Coney Island and Brooklyn Railroad Company does not operate elevated lines, and the ten cent rate on its system is available on surface cars.

There is a very heavy traffic to and from Coney Island during the summer season. The surf bathing and other attractions make the district popular with hundreds of thousands of people who seek relief from the heat in congested parts of the city during the summer months. This district is reached mainly by the elevated and surface lines of the Brooklyn Rapid Transit System and by the surface lines of the Coney Island and Brooklyn Railroad Company. The distance from the Manhattan terminal of the Brooklyn Bridge is about twelve miles, and prior to this season the companies have been charging a ten-cent fare for the ride. The only exception to this in recent years was the practice of the Coney Island and Brooklyn Railroad Company of carrying passengers on all days of the week except Saturday, Sunday and holidays, at a five cent fare, but this practice was suspended about two years ago. Until the recent agreement, there-

fore, the uniform rate from Manhattan to Coney Island was ten cents each way.

This ten cent rate was brought to the attention of the Public Service Commission in 1908, when Jonas Monheimer and Scott Mac-Reynolds made complaint that the fare was excessive and asked that the Commission order a lower rate. This was the beginning of a long rate case, which held the attention of the Commission for more than two years, during which the companies put in voluminous evidence tending to prove that the five cent fare would involve financial loss, especially as the heavy traffic covered practically only three months of the year. In deciding the case the Commission divided by a vote of three to two, the majority holding that the ten cent fare was reasonable. The companies, therefore, continued to charge ten cents each way until the experimental arrangement alluded to above was made.

THE ELEVATED RAILROADS

THE Interborough Rapid Transit Company, lessee of the City Subway, operates under lease from the Manhattan Railway Company all the elevated railroads in Manhattan and The Bronx. These railroads cover 37.68 miles of line and 118 miles of single track. There are three main systems, known as the Second Avenue, Third Avenue and Ninth Avenue lines. In addition, there is the Sixth Avenue Elevated road, which is a separate line south of 53d Street, but which uses the tracks of the Ninth Avenue line from there north to 155th Street and Eighth Avenue, the terminus of both the Sixth and Ninth Avenue lines. The Second and Third Avenue elevated lines run from the Battery, which is the southernmost point of Manhattan Island, uptown the whole length of the island, across the Harlem River and through The Bronx to 199th Street. The Sixth and Ninth Avenue lines also begin at the Battery and run north the whole length of the island, having their terminus at 155th Street and Eighth Avenue. These lines perform a most important part in the daily transportation work of New York City.

Both the traffic and the service on the elevated roads have increased greatly since the Commission began work in 1907. The roads operated 1503 cars and carried 282,924,273 passengers for the year ended June 30, 1907. Four years later, namely, for the year ended June 30, 1911, the company operated 1,585 cars and carried 301,449,292 passengers. While the number of cars shows a compara-

tively small increase, the number of car miles operated has grown considerably. For the year ended June 30, 1907, the revenue car miles operated aggregated 61,607,830, while for the year ended June 30, 1911, the total was 66,220,938. The average daily number of passengers handled by the elevated lines has increased from 775,133 in 1907 to 825,886 in 1911.

The Commission has kept close watch of the operation of elevated roads, and whenever in its judgment the service fell behind the demands of the traveling public, an increase was ordered. It applied to the elevated roads the same standard set for other transportation lines, namely, the operation of sufficient cars during a given period to provide a number of seats at least equal to the number of passengers during such period, or the operation of as many trains as the physical limitations of the line permitted. Orders conforming to this standard, with varying periods to meet local conditions, were issued, covering every line of the elevated system. In the four years since the Commission came into existence, there has been a large increase in the service. This can be shown by comparing the heaviest traffic season of the year, which is the winter time, for the years 1907 and 1911.

On the Third Avenue elevated, in January, 1907, the company operated during the rush hours 34 trains per hour, or 238 cars with 11,900 seats, at intervals of 1 minute 45 seconds. In January, 1911, during the rush hours, it operated 42 trains per hour, or 294 cars with 14,700 seats, at intervals of 1 minute 25 seconds. A similar improvement is noted in the mid-day traffic. In January, 1907, the company operated during this period 25 trains per hour, or 105 cars with 5,250 seats, at intervals of 2 minutes 40 seconds, while in January, 1911, it operated 25 trains per hour, or 155 cars with 7,750 seats, at intervals of 2 minutes 40 seconds. With no change in the interval, the number of cars per train has increased from five to six, thus giving the additional 2,500 seats per hour.

During the non-rush hours of the afternoon the headway was 3 minutes in 1907 and 2 minutes 44 seconds in 1911, which, with an increase in the number of cars per train, brought about an increase of 2,700 seats per hour. On the Sixth Avenue Elevated, in January, 1907, the company was running 30 trains per hour, or 180 cars with 9,000 seats, at intervals of two minutes during the rush hours. In January, 1911, this operation was being performed by 45 trains per hour, or 315 cars with 15,750 seats, at intervals of 1 minute 30 seconds. Therefore, the Sixth Avenue service in the rush hours has been increased 6,750 seats per hour since 1907.

On the Second Avenue elevated the rush hour operation in January, 1907, called for 20 trains per hour, or 140 cars with 7,000 seats, at intervals of 3 minutes. In January, 1911, this had been increased to 30 trains per hour, with 210 cars or 10,500 seats, at intervals of 2 minutes.

On the Ninth Avenue elevated line the rush hour service shows but little increase, for the reason that this service is made up almost entirely of long-distance express trains, which run without stop between the downtown section of Manhattan and Harlem. This service has always been very popular, and was so well established in 1907 that very little improvement was possible. In January, 1907, 17 of these express trains were operated per hour, or 119 cars with 5,950 seats, at intervals of 3 minutes 30 seconds. In January, 1911, 20 trains per hour, or 140 cars with 7,000 seats, were operated, at intervals of 3 minutes. The other rush hour operation, that is, local trains, has remained the same, namely, 15 trains per hour, or 90 cars with 4,500 seats, at intervals of 4 minutes.

New Stations, Escalators and Stairways.

Following is a list of the more important improvements effected on the various elevated lines in Manhattan and The Bronx since July 1, 1907, either by order of the Commission or by informal proceedings:

Third Avenue Elevated Line.

- New exit and entrance stairway at 138th Street station.
- New stairway at 149th Street station.
- Additional platform and signs installed at City Hall station.
- Additional stairway constructed at 89th Street station.
- South bound platform enlarged and existing danger eliminated at 116th Street station.
- Additional stairway at 161st Street station.
- New station erected at 180th Street and opened about June 30, 1909.
- Additional stairway erected at 133d Street station.
- Canopy installed at City Hall station and gates opened on both sides of trains during rush hours.
- Additional ticket office and new entrance and exit at 133d Street station.
- Railings installed and ticket booths relocated at Wendover Avenue station.
- Drip pans attached to elevated structure at 134th Street to prevent oil and water dripping on the sidewalk.
- Signs re-located and new signs installed at stations north of the Harlem River.

Sixth and Ninth Avenue Elevated Lines.

- New escalator erected at 125th Street station.
- Drip pans attached to structure at Eighth Avenue and 159th Street.
- Arrangements made to substitute ticket box for turnstile during rush hours at 8th Street station, Sixth Avenue line.
- Bulkhead removed from bottom landing, Desbrosses Street station, Ninth Avenue line, eliminating congestion at foot of stairway.
- Additional shelter and waiting room facilities at 135th Street station, Ninth Avenue line.

Second Avenue Line.

Additional stairway at 92d Street station.

All Lines.

Additional signs designating stations placed at all stations south of 125th Street.

Canopies constructed over two stairways on the Sixth Avenue line at Park Place and Church street.

Elevated cars equipped with new lights.

Additional platform men placed on all stations to facilitate the loading and unloading of trains.

Heating regulations established requiring certain temperatures during cold weather.

Destination signs installed on all cars.

Improvements in Brooklyn.

The Commission has also exercised supervision over the equipment and operating conditions of the Brooklyn elevated lines. These are operated by the Brooklyn Union Elevated Railroad Company, one of the constituent companies of the Brooklyn Rapid Transit System. Orders for improvements in service, similar to those covering the Manhattan elevated lines, have been issued. A number of improvements in stations and equipment have been made since the Commission began work. The more important improvements effected on the Brooklyn Union Elevated lines are as follows:

Broadway Elevated Line.

Waiting room and canopy on Canarsie line at Avenue "L."

New stairway and guard rails at Sutter Avenue.

Stairway facilities improved at Gates Avenue station.

New station opened at Livonia Avenue.

Fulton Street Elevated Line.

Station opened at Lafayette Avenue.

Stairway and gallery improvements at Duffield Street.

Additional ticket booth and other improvements in conditions at Van Siclen Avenue station.

Fifth Avenue Elevated Line.

Waiting room, platform canopy and wind break improvements installed at 36th Street station.

Additional facilities provided at Atlantic Avenue station.

Waiting room doors and settee provided at 36th Street station.

Wind shields, signals and station enlargements at 65th Street station.

West End Elevated Line.

Additional waiting room provided at 39th Street station.

Improvements in condition of platform at 54th Street station.

Myrtle Avenue Line.

Improvement in station facilities at Wyckoff Avenue station.

Improvement in station facilities at Covert Avenue station.

Myrtle Avenue and Broadway: New stairway and waiting room improvements at station.

Lexington Avenue Line.

Terminal facilities improved and new additions made at Cypress Hills station.

Culver Line.

New toilet installed at Sixteenth Avenue station.

Brighton Beach Line.

Enlargement of station facilities at Church Avenue station.

All Lines.

Destination signs placed inside and outside of cars and on stations.

Additional signs placed at various stations on all the elevated lines.

EXTENSIONS OF ELEVATED LINES

In view of the increase in the traffic on the elevated lines, efforts have been made from time to time to bring about their extension by such additions to the existing system as will provide needed facilities for the growing business. The company leasing the lines has for some years desired to get from the city the right to add a third track to each of the elevated roads.

As the same company operates the city subway, the question of third-tracking the elevated roads naturally became linked with proposals for additions to the subway. These additions and extensions have been the subject of negotiation between the public authorities and the company for the last five years, but while progress has been made, a final agreement with the Interborough Rapid Transit Company has not been reached, owing to complications arising from the negotiations for subway and elevated extensions.

In the proposals made this year by the company, after a series of negotiations with the Public Service Commission and the Board of Estimate and Apportionment, the third-tracking and extensions of the elevated lines were provided for; but the representatives of the city and the company, not being able to arrive at an agreement as to terms of operation for the proposed subways, the extensions and third-tracking of the elevated roads were necessarily held in abeyance. As soon, however, as it became clear that no agreement on subways would be reached between the city and the company, the Public Service Commission adopted certificates granting the third-tracking and elevated extension rights, and on August 2, 1911, transmitted them to the Interborough Rapid Transit Company. Under the law the company has the right to accept or reject these certificates, and at the time this is written it has not indicated whether it will accept.

One certificate provides for the installation of a third-track on the Second, Third and Ninth Avenue elevated roads for use as express lines, and the company is given the right to operate them for a certain consideration. The consideration consists principally of the payment by the company to the city each year of a sum equal to 2 per cent of the excess of the gross receipts at each station served by the new third track over the gross receipts of the same station for the year ending June 30, 1911. This rental is to be readjusted at the end of the first 25 years of the lease and thereafter at intervals

of 20 years. The grant is to hold good for the life of the original franchise for the elevated roads, but may be terminated sooner by the city on terms provided in the certificate.

The certificate for extensions gives to the Interborough Rapid Transit Company the right to build and operate the Webster Avenue line, the Jerome Avenue line and the Queensboro Bridge line.

The Webster Avenue line is an extension of the Third Avenue elevated road from about Pelham Avenue, along Webster Avenue to Gun Hill Road, through Gun Hill Road to White Plains Road, and along White Plains Road to Becker Avenue or 241st Street.

The Jerome Avenue line is an extension of the Ninth Avenue elevated road from 157th Street and Eighth Avenue, over the Harlem River by the Putnam Division Bridge of the New York Central, through Sedgwick Avenue and other streets to near 162d Street and Ogden Avenue, to near River Avenue, to Jerome Avenue and along Jerome Avenue to about 198th Street, thence over Jerome Park Reservoir property to near 204th Street and Jerome Avenue, and thence along Jerome Avenue to Woodlawn Cemetery.

The Queensboro Bridge line is an extension of the Second Avenue elevated road across the Queensboro Bridge over the East River. It leaves the Second Avenue line between 58th and 60th Streets, and runs across the Queensboro Bridge and the Queensboro Bridge Plaza to the westerly side of Jackson Avenue in Queens Borough.

As compensation for the extensions, the company must pay to the city each year one-tenth of the excess of net profits over the average annual net profits of the existing elevated railroads for the two years ending June 30, 1911. These payments continue for 25 years, and for every period of 20 years thereafter the company shall share the net profits equally with the city. Trackage rights for the operation of other companies are reserved over the extensions. This will permit the operator of the Lexington Avenue subway, now under construction, to use the Jerome Avenue line, which was laid out by the Commission as an extension of that subway, but which the Interborough Company desired as an extension of its West Side elevated system. The city may take over any of the lines at the end of ten years by paying the company in accordance with the terms of the certificate and purchasing its plant and property.

The grant itself may run for 85 years, or until July 1, 1998, unless sooner terminated, and at the end of the grant the city must buy the equipment provided by the company.

ELIMINATION OF GRADE CROSSINGS

FOR the first time in many years, proceedings have been started looking to the elimination of dangerous grade crossings of steam railroads within the City of New York. Under the law, the Public Service Commission is charged with the duty of initiating such proceedings. Soon after its organization, it began a study of this problem. In a report to the Legislature made in 1908, the Commission showed that more than four hundred grade crossings existed in the various parts of the Greater City.

The Railroad Law provides that the expenses of eliminating grade crossings shall be borne, one-half by the railroad company affected, one-quarter by the state and one-quarter by the city. It is necessary for the state to appropriate its quarter before the Commission can take any steps toward elimination. For the ten years preceding the organization of the Public Service Commission, the state of New York made but one appropriation for grade crossing elimination within the City of New York, and that was less than \$10,000, appropriated as the state's part of the cost of eliminating a grade crossing on the Putnam Division of the New York Central in Van Cortlandt Park.

The Public Service Commission, in its report to the Legislature, set forth these conditions and requested an appropriation by the state to enable the city to begin a campaign for abolishing these grade crossings. The Legislature of 1909 appropriated \$250,000, of which \$200,000 was made available for Queens County and \$50,000 for Richmond County. Under this appropriation, the Commission began proceedings looking to the elimination of 20 grade crossings in the Borough of Queens and 5 grade crossings in Richmond. At the close of 1910 it had reached formal determination as to 9 of the Queens crossings located in Flushing and ordered their elimination. The cost of this work will be \$1,100,000, and the Long Island Railroad Company has agreed to bear the excess of the cost over the available appropriations.

The Commission also ordered the elimination of the two grade crossings of the Staten Island Railway Company, at Crooks Crossing, Gifford, and at Huguenot Avenue, in Richmond County.

At the present time the Commission is conducting proceedings for the elimination of additional crossings in Queens to cost about

\$1,000,000. It requested the Legislature to appropriate \$400,000 as the state's contribution for this purpose, but only \$250,000 was allowed.



Grade Crossing on Main Street, Flushing, Long Island. To Be Eliminated by Order of the Commission

In view of the fact that it will take some years to get appropriations necessary to complete the elimination work, the Commission has taken steps to protect, by means of gates, flagmen, bells or other protection, such crossings as cannot be eliminated in the near future.

At the beginning of this year (1911) the grade crossings in the various boroughs of the city were as follows:

GRADE CROSSINGS IN NEW YORK CITY, DECEMBER 31, 1910.									
	Public.	Private.	Total.	Gates.	Flag Day Only.	Flag Day & Night.	Bell.	Sign.	Other Pro- tection.
Manhattan	103	..	103	9	18	26	..	..	47
Brooklyn	57	2	59	21	9	23	5	48	1
Bronx	6	..	6	6	1	5	4	6	..
Queens	183	25	208	107	15	106	19	181	18
Richmond	85	34	119	18	7	22	50	99	3
Total	434	61	495	161	50	182	78	334	69

The Commission regards elimination work as very important, for the reason that fatal accidents occur every year on account of the existence of grade crossings. In the year 1908, 21 persons were killed at such crossings, 23 in 1909 and 16 in 1910. The following

table shows the number of persons killed and injured at such crossings of the various railroads in the city :

GRADE CROSSING ACCIDENTS.									
	Killed.		Injured.		Killed.		Injured.		Total.
	1908.		1909.		1910.				
N. Y. C. & H. R.	0	11	1	5	1	2	2	18	
N. Y., N. H. & H.	0	0	0	0	0	0	0	0	
L. I. R. R. Co...	15	13	12	10	13	19	40	42	
S. I. R. T. Ry...	0	2	3	4	1	5	4	11	
S. I. Ry.....	1	0	1	0	0	4	2	4	
B. R. T.....	5	15	6	16	1	2	12	33	
Totals	21	41	23	35	16	32	60	108	

Crossings under Consideration.

Proceedings now pending before the Commission for the elimination of grade crossings affect the following places :

Case No. 1258, 18th Street, Whitestone, crossing, of the Long Island Railroad.

Case No. 1259, Fifth Avenue, Whitestone, crossing, of the Long Island Railroad.

Case No. 1260, Merrick Road, Springfield, crossing, of the Long Island Railroad.

Case No. 1261, Fresh Pond Road and Metropolitan Avenue, Bushwick Junction, crossings, of the Long Island Railroad.

Case No. 1262, Farmer's Avenue, Hollis, crossing, of the Long Island Railroad.

Case No. 1263, Hamilton Street, Hollis, crossing, of the Long Island Railroad.

Case No. 1264, Hempstead and Jamaica Turnpike, Queens, crossing, of the Long Island Railroad.

Case No. 1265, Lawrence Street, Old Lawrence Street and Bridge Street, Flushing, crossings, of the Long Island Railroad.

Case No. 1380, Bennett or Baylis Avenue, Wertland Avenue, Creed Avenue, and Madison Avenue, Queens, crossings, of the Long Island Railroad.

Case No. 1384, Collins Avenue, Flushing Avenue, Grand Street, Old Flushing Avenue or Flushing Road, Maspeth Avenue, Haberman's Factory (Munich Street), Clifton Avenue, Hobson Avenue (Washington Avenue), Laurel Hill Boulevard, Greenpoint Avenue, crossings, all of the Montauk Division of the Long Island Railroad in the Borough of Queens.

Hearings in the above cases are still in progress. In the following proceedings hearings have been held, but the Commission has not yet made its decision.

Case No. 1271, Clove Avenue at Grasmere, crossing, of the Staten Island Railway Company in Staten Island, and closing and discontinuing Sheridan Avenue, Grasmere Avenue, Garretson Place, Parkinson Avenue, and diversion of travel to Clove Avenue at the Fingerboard Road by the construction of a new street.

GAS AND ELECTRIC COMPANIES

INCLUDED in the corporations under the jurisdiction of the Commission are gas and electric companies, which furnish gas and electric current for light, fuel, power, etc. Speaking generally, the business of furnishing gas and electricity in New York City is in the hands of monopolies. In Manhattan and The Bronx the gas business is handled largely by the Consolidated Gas Company and its affiliated

concerns, while the electric business is mainly done by the New York Edison Company and its affiliated corporations. In Brooklyn the situation is similar, the gas business being done mainly by the Brooklyn Union Gas Company and allied concerns and the electric business by the Edison Illuminating Company of Brooklyn and affiliated companies. There are a few independent companies in various parts of the city, but their output forms but a small proportion of the total production.

These light, heat and power companies collected from the public in the fiscal year 1911, a total of \$57,226,095, of which \$31,843,272 went to the gas companies and \$25,382,823 to the electric companies. This was equivalent to a per capita tax of \$6.68 for gas and \$5.32 for electricity. These figures include the cost of public lighting for streets, etc., to the extent of more than \$3,500,000 for the year.

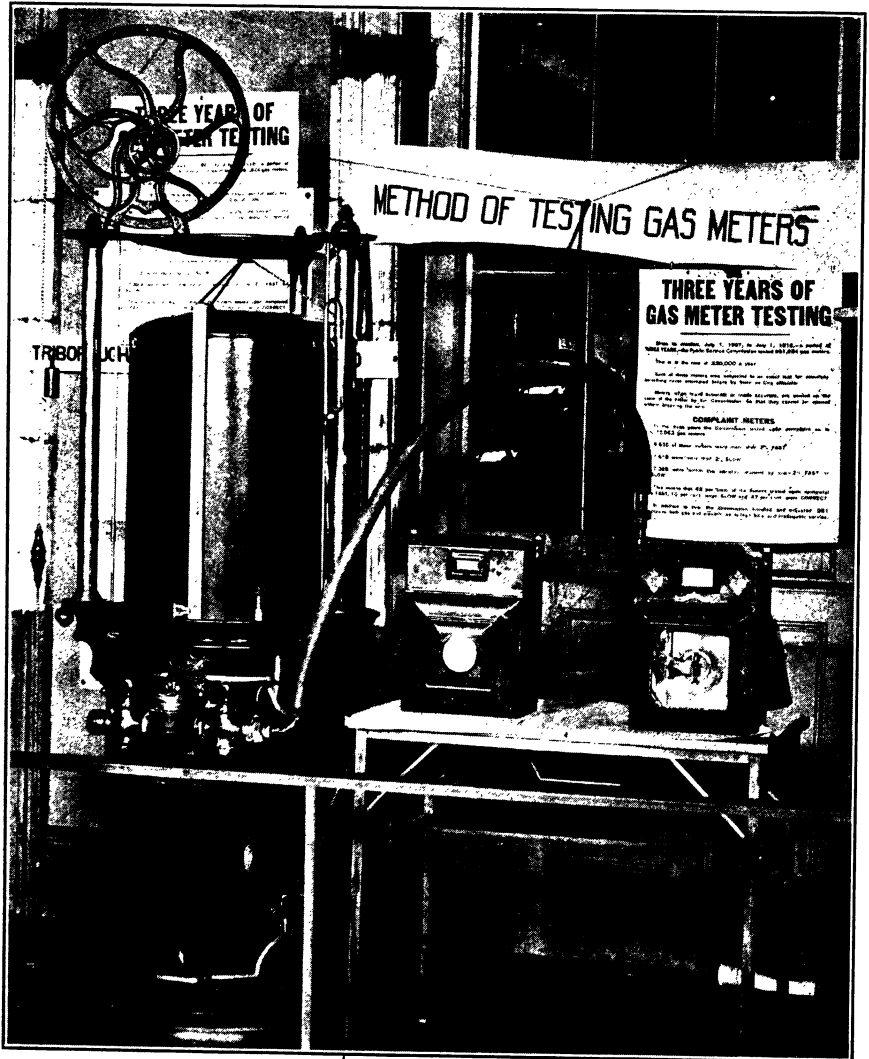
The combined capitalization of the gas and electric companies, including electric conduit companies, aggregates \$379,463,522, according to last reports. Of this total, which includes capital stock, and funded debt outstanding, the gas companies have \$211,030,650; the gas-electric, \$5,548,500; the electric light and power companies, \$136,135,372, and electric conduit companies, \$26,749,000. In this classification there are 17 gas companies, 3 gas-electric companies, 10 electric light and power companies and two electric conduit companies.

Gas and Electric Meters Tested.

It is the duty of the Commission to test all gas and electric meters before they are placed by the company. Any consumer may have his meter tested by the Commission upon the payment of a fee of 50 cents for a gas meter and from \$2.00 up for an electric meter. In case the meter is found to be fast, the fee is returned to the complainant; if not, it is retained by the city.

In the first four years of its existence, namely, from July 1, 1907, to June 30, 1911, the Commission made 1,378,627 tests of gas meters. Of this number 273,095 were new meters, 1,085,560 were meters that had been removed or repaired by gas companies, and 19,970 were tested upon complaints by consumers. Of the "complaint" meters, 9,137, or less than half of the number tested, were found to be correct within the meaning of the law, which allows a variation of 2 per cent fast or slow from absolute accuracy; 8,770 were found to be more than 2 per cent fast and 2,063 more than 2 per cent slow. In many of these complaint cases, where a fast meter had been in use for a considerable length of time, the company responsible voluntarily

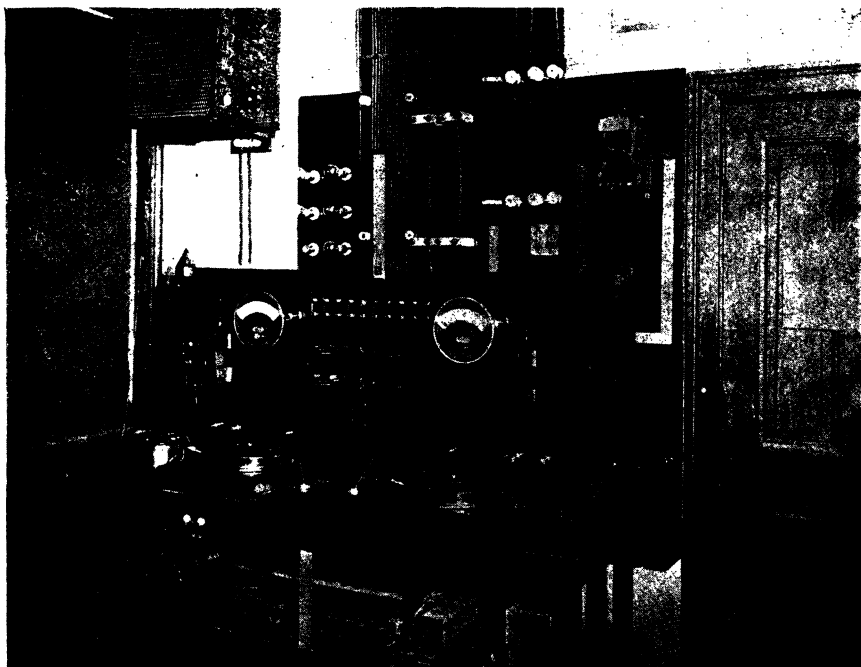
gave the consumer a rebate for overcharges. In this way the testing work of the Public Service Commission has proved a boon to many a poor family.



Method of Testing Gas Meters

When the Commission began work in 1907, the total number of gas meters in use in the city was 1,085,488. In 1911, this number had increased to 1,289,865. It was the aim of the Commission to have all gas meters in use pass the inspection of the Commission, and therefore it issued an order requiring the companies to remove and submit to the Commission's test gas meters which have been in use for a period of seven years. It will not be very long, therefore, until every gas meter set in the City of New York will have been tested and sealed by the public authorities.

In order to prepare for the testing of electric meters, it was necessary for the Commission to install at its offices an expensive electric laboratory. This was completed in the summer of 1908, and in August of that year the testing of such meters began. Since that time the Commission has tested a total of 2,217 electric meters. Such meters, as a rule, are found to be more accurate than gas meters, and the law allows a variation of 4 per cent either way from absolute accuracy. The number found to be excessively fast was comparatively few.



Portion of the Electrical Laboratory of the Commission

The following table shows the number of gas and electric meters tested by the Commission each year up to June 30, 1911:

GAS METERS TESTED—FROM JULY 1, 1907 TO JUNE 30, 1911.

	1907.	1908.	1909.	1910.	1911.
Complaint	1,562	7,346	4,079	4,428	2,555
New	44,227	63,414	55,939	70,103	39,412
Repaired and removed.....	82,057	269,286	297,775	274,086	162,356
Total	127,846	340,046	357,793	348,617	204,323

Grand total, 1,378,625.

ELECTRIC METERS TESTED—FROM AUGUST 1, 1907, TO JUNE 30, 1911.

	1908	1909	1910	1911
	239	925	637	416

Grand total, 2,217.

REDUCTION IN RATES

As the Commission has the power to reduce the rates of gas and electric companies, if found to be unreasonable, it has conducted several proceedings involving the questions of rates and contracts. In 1908 it began an investigation into the rates and contracts of the New York Edison Company and other electric companies, which covered a period of two years and had several important results.

One of the first was the resumption of breakdown service by the electric companies. Breakdown service is the service supplied by electric companies to persons having their own electric plants at times when those plants are not sufficient to supply all the energy needed. At the time of the Commission's organization, the companies had refused to furnish such service. After some negotiations, the Commission induced the various companies to resume the service for an adequate charge, and since the year 1908 all companies have been supplying it when called upon.

Under the Commission's orders, the gas and electric companies are required to keep uniform systems of accounts and to make periodical reports to the Commission according to uniform forms. Various modifications in contracts, resulting in benefit to the consumer, have also been brought about, and all such contracts must be published by the companies.

Throughout the investigation the Commission endeavored to bring about a reduction and readjustment in the prices charged for electric current. It received many complaints as to alleged discrimination in charges and unreasonableness in rates. The New York Edison Company met the Commission's requests in a spirit of fairness, and, on July 1, 1911, put into effect a new tariff embodying a

complete revision of rates. These revised rates are now in effect. According to an estimate made by the company, they amount to a saving to their customers of \$1,250,000 per annum, based upon the former tariff.

Under the new rates every consumer using more than \$25 worth of current a month gets the benefit of a discount of from 5 to 25 per cent upon previous charges. Under the new schedules also, the contracts were simplified and former objections to the complexity of such contracts were largely removed. Under the law, the maximum rate for electric current is ten cents per kilowatt hour, and this rate prevails under the retail schedule, with progressive reductions beginning with consumers having bills of \$25 per month or more.

REDUCED RATES FOR GAS

Eighty cent gas has become a reality in New York City since the Public Service Commission was organized. While the Commission did not institute the proceedings which brought it about, it took a prominent part in the litigation which arose over it. At the time of the organization of the Commission, this litigation was going on. The Legislature of 1906 had passed a law reducing the price of gas in Manhattan and The Bronx and the greater part of Brooklyn to 80 cents per thousand cubic feet. Companies in this territory had been charging \$1.00 per thousand cubic feet. The Consolidated Gas Company attacked the law in the courts on the ground that it was unconstitutional, in that the reduction to 80 cents would be confiscatory, and on other grounds, and the case was carried to the Supreme Court of the United States. The Public Service Commission retained the late E. B. Whitney to represent the city in the appeal to the United States Supreme Court. That court rendered a decision upholding the constitutionality of the law. The Brooklyn companies had obeyed the law from the start, but the Consolidated Gas Company and its affiliated companies continued to charge the \$1.00 rate on an agreement that if the 80 cent law was upheld, they would refund the overcharges. The amount of these overcharges had been placed in the hands of an officer of the United States Court, and soon after the decision the company reduced its charge to 80 cents and the court distributed the amount retained in rebates to the consumers.

RATES FIXED BY THE COMMISSION

The law empowers the Public Service Commission to order a reduction in rates charged for gas after an investigation conducted upon a complaint of not less than 100 consumers. Two such complaints were filed in the Winter of 1910-1911, one against the Queens Borough Gas and Electric Company and the other against the Brooklyn Borough Gas Company and the Kings County Lighting Company.

The Queens Borough Company Case.

The first complaint was that against the Queens Borough Company, which had been charging \$1.30 maximum and \$1.25 minimum per thousand cubic feet from and after January 1, 1909. The complaint against the Queens Borough Company involved prices for both gas and electricity. At the time the complaint was filed the rate charged by the company for electric current was 15 cents maximum and .035 cents minimum per kilowatt hour. The company offered to reduce its rates and to make the maximum rates for gas \$1.25 and for electricity 14 cents for the year 1911 and to reduce prices still further if its finances would permit.

This proposal was not approved by all parties, and the company then voluntarily offered to accept such rates as the Commission should establish and to put them into effect for at least one year. The Commission investigated the affairs of the company, appraised its plant, ascertained the cost of manufacture and distribution, and adopted an order on June 23, 1911, directing the company to establish and maintain the following prices:

From July 1, 1911, to January 1, 1912, one dollar and twenty cents (\$1.20) per thousand cubic feet of gas;

From January 1, 1912, to July 1, 1912, one dollar and fifteen cents (\$1.15) per thousand cubic feet of gas;

From July 1, 1911, to July 1, 1912, thirteen cents (\$.13) per kilowatt hour for electricity.

The company accepted this order and the reduced rates are now in effect.

The Brooklyn Borough Company Case.

The Commission conducted a similar investigation into the affairs of the Brooklyn Borough Gas Company and the Kings County Lighting Company. This company supplied gas for the 31st Ward of Brooklyn, an outlying section with a scattered population and other conditions rendering the distribution of gas more than usually

expensive. At the time the complaint was filed the Brooklyn Borough Company was charging \$1.05 per thousand for gas to private consumers and 75 cents for gas for municipal lighting, but, according to law, reduced the former rate to \$1.00 on January 1, 1911. In 1906 the Legislature prescribed rates for gas in this territory at \$1.20 per thousand feet for the year 1907 and diminishing five cents a year until 1910, when the rate was \$1.05, and thereafter it was to be \$1.00 per thousand.

On August 18, 1911, the Commission adopted an order dismissing the complaint, on the ground that "the facts do not at present warrant the issuance of an order reducing the maximum price of gas below \$1.00."

REGULATING SECURITY ISSUES

A PROVISION of the Public Service Commissions Law forbids public service corporations under its jurisdiction to issue new bonds or stock without the approval of the Commission. Therefore the Commission has been called upon from time to time to pass upon applications for its approval of various issues of proposed securities by various companies. Before the era of public regulation there had been practically no official curb upon corporations in this respect, and overcapitalization, particularly with transit companies, was the result. Many companies had gone to the extreme in putting out stock and bond issues, which, while given a fictitious value in the markets by manipulation, eventually diminished in value when the true worth of the property against which they were issued became known. The result was a shrinkage in values of such securities, especially traction stocks, which brought loss to many investors.

In passing upon applications for security issues, therefore, the Commission was on its guard against the evils of overcapitalization and invariably insisted that every dollar's worth of value in the proposed securities should be backed up by a dollar's worth of value in the property against which they were to be issued. Pursuing this policy, the Commission in the four years from July 1, 1907, to June 30, 1911, has approved only \$89,153,219 out of a total of \$307,824,940 asked by the companies. Applications aggregating \$68,851,500 are still pending.

The following table shows the number of such applications made, the companies by whom they were made, the amount asked for and the amount allowed by the Commission:

APPLICATIONS BEFORE THE COMMISSION FOR APPROVAL OF BOND AND STOCK ISSUES, JULY 1, 1907, TO SEPTEMBER 1, 1911.

Company.	Nature of security.	Amount applied for.	Amount allowed.	Amount not allowed.	Amount withdrawn.	Pending.	Amount contested in court.
N. Y. & Queens Elec. Lt. & Pr. Co.....	Bonds	\$2,000,000					
East River Term. R. R. Co.....	Stock	10,000					
Coney Island & B'klyn R. R. Co.....	Bonds	30,000					
Coney Island & B'klyn R. R. Co.....	Bonds	568,500					
Interborough Rap. Tran. Co.....	Bonds	30,000,000		\$78,500			
Manhattan Railway Co.....	Gold Certs.	25,000,000					
Manhattan Railway Co.....	Bonds	10,818,000					
Brooklyn Union Gas Co.....	Stock	894,000					
Nassau Elec. R. R. Co.....	Stock	3,000,000					
Brooklyn Union El. R. R. Co.....	Demand Certs.	5,000,000					
Long Acre Elec. Lt. & Pr. Co.....	Bonds	20,000,000					
City Island R. R. Co.....	Bonds	10,000,000	com.				
Pelham Park R. R. Co.....	Bonds	50,000					
Coney Island & Brooklyn R. R. Co.....	Bonds	372,000					
Kings County Ltg. Co.....	Bonds	450,000					
South Flatbush R. R. Co.....	Bonds	30,000					
Third Avenue R. R. Co.....	Bonds	*48,516,800					
Bondholders' Comm.....	Stock	*20,000,000					
Spydt, Duyv. & Pt. Mor. R. R. Co.....	Bonds	2,500,000					
Bronx Gas & Elec Co.....	Bonds	740,000					
Nassau Elec. R. R. Co.....	Bonds	730,000					
Kings Co. Elec. Lt. & Pr. Co.....	Bonds	5,000,000					
Third Av. R. R. Co.....	Bonds	38,326,000					
Bondholders' Comm.....	Stock	16,590,000					
New York Edison Co.....	Stock	5,349,400					
Bronx Gas & Elec. Co.....	Bonds	153,000					
Coney Is. & Brooklyn R. R. Co.....	Notes	*500,000					
Coney Is. & Brooklyn R. R. Co.....	Bonds	109,740					
Metropolitan St. Ry Co.....	Bonds	50,701,500		17,921			
Bondholders' Comm.....	Stock	14,150,000					
Nassau Elec. R. R. Co.....	Bonds	52,000					
Manhattan Bridge 3c. Line.....	Stock	50,000					
28th & 29th Sts. Crosstown R. R. Co. }	Stock	500,000					
Bondholders' Comm.....	Bonds	1,000,000					
Interborough Rap. Tran. Co.....	Bonds	\$89,153,219	\$203,097,221	\$2,140,000	\$68,851,500		\$114,916,000
Long Island Elec. Ry. Co.....	Bonds	10,000,000	Discontinued 1909, on ground of consent already given.				
Met. St. Ry. Co., of Bridge Over. Co.....	Reduction of stock.	\$2,100,000					
S. I. Railway Co., to B. & O. R. R. Co.....	Acquisition of stock.	\$50,000					
S. I. Railway Co., to B. & O. R. R. Co.....		\$27,000					
N. Y. Edison Co., of Yonkers Elec. Lt. & Pr. Co.....		80,000					
		95,000					

Not acted upon. Application was defective.

Note: *The foregoing involves a duplication of \$54,916,000 representing second application of Third Ave. R. R. Co. Bondholders' Comm., and \$500,000 notes of Coney Island & Brooklyn R. R. Co., which were secured by bonds previously authorized in Cases 420 and 1109.

**Decided by the Commission in accordance with a direction by the Appellate Division of the Supreme Court.

***In both cases the Court reversed the decision of the Commission, but an appeal to the Court of Appeals is pending in the matter of the second application of Third Ave. R. R. Bondholders' Comm.

DISAPPROVAL CONTESTED IN THE COURTS

While most of the companies accepted the decisions of the Commission as to security issues, such decisions were contested in the courts by the Long Acre Electric Light and Power Company and by the Third Avenue Railroad Company.

The Long Acre Case.

The Long Acre Electric Light and Power Company had a franchise for the supplying of a certain section of Manhattan with electric current and applied to the Commission for permission to issue \$50,000,000 in bonds and \$10,000,000 in stock, with the idea of enlarging its plant, distributing system and operations. The Commission, after an investigation, denied the application on several grounds. The company obtained a writ of certiorari from the Supreme Court to review the action of the Commission, and the case went to the Appellate Division, which overruled the action of the Commission and returned the case to it for action in accordance with the opinion. Further hearings were held, and the Commission this year decided to allow the company to issue \$2,000,000 of stock and \$4,000,000 in bonds under certain conditions.

The Third Avenue Railroad Case.

The Third Avenue Railroad Case was one involving the reorganization of that company. Formerly a part of the Metropolitan Street Railway System, the Third Avenue Railroad Company in 1908 was separated from that system in litigation following the bankruptcy of the New York City Railway Company, and placed under a separate receiver. Its bondholders formed a committee for the purpose of reorganizing the company and applied to the Commission for its approval of a proposed issue of stock and bonds necessary in the opinion of the committee to the reorganization of the company.

The Commission denied the application for various reasons, the principal one being that the company was already capitalized beyond the actual value of its property, and that the proposed issues only added to the overcapitalization.

The Bondholders' Committee worked out a second plan of reorganization and submitted it to the Commission with a request for its approval of another scheme of security issues. While this was a better plan than the first one, in the opinion of the Commission, approval of it also was denied, but in its decision the Commission pointed out a way in which the second plan could be made acceptable.

The committee obtained a writ of certiorari from the Supreme Court for a review of the Commission's action, and the Appellate Division decided against the Commission. The Appellate Division held that the provision of the Stock Corporations Law, allowing the reorganization of corporations without regulation, was not repealed by the Public Service Commissions Law, and that, therefore, the Third Avenue Railroad Company could reorganize without the Public Service Commission having any jurisdiction in regulating the amount of securities to be issued. The Stock Corporations Law allows a bankrupt company on reorganization to issue securities to the amount of the legal securities outstanding at the time the company went into bankruptcy. Believing that it was the intent of the Legislature, in passing the Public Service Commissions Law, to give the Commission authority over the security issues of companies on reorganization, as well as over those of new companies or companies not bankrupt, the Commission has appealed from this decision to the Court of Appeals. That appeal is still pending.

INTERBOROUGH-METROPOLITAN INVESTIGATION

The importance of public supervision of such securities was emphasized in 1907 by an investigation held by the Commission into the affairs of the New York City Railway Company, which controlled all the surface car lines in Manhattan and The Bronx. This property was controlled through a holding company known as the Interborough-Metropolitan Company, and therefore the investigation has been known as the Interborough-Metropolitan investigation. In the course of that inquiry the existence of surprising conditions prevailing among the traction companies was disclosed. It was found that stock and bond issues had been piled up on the constituent companies of the Metropolitan Street Railway System until nearly every one was overcapitalized, that extravagant rentals were paid for leased lines, that dividends had been paid out of moneys not earned, that the value of traction securities had been kept up in the markets by financial manipulation, that funds of the companies had been spent for other than proper company purposes, that exorbitant prices had been paid for street car properties and franchises and that the whole system was tottering toward bankruptcy for the reason that the earnings were not sufficient to operate the roads and pay rentals and fixed charges on the capitalization. It was also shown that the service on many lines had been starved and the equipment allowed to deteriorate on account of the financial condition of the companies.

As soon as the light of publicity was turned upon these conditions, the whole system went into bankruptcy. Creditors of the New York City Railway Company applied to the United States District Court in bankruptcy proceedings, and a receiver was appointed for that company. Then began the disintegration of the New York City railway system, resulting in the segregation of the Third Avenue Railroad Company, the Metropolitan Street Railway Company, the Second Avenue Railroad Company, the Central Park, North and East River Railroad Company, the 28th and 29th Streets Crosstown Railroad Company, the 42d Street, Manhattanville and St. Nicholas Avenue Railroad Company, the Dry Dock, East Broadway and Battery Railroad Company, the Fulton Street Railroad Company, Westchester Electric Railway Company, Union Railway Company and the Yonkers Railroad Company.

The Central Park, North and East River Railroad Company, which had been leased by the Metropolitan, went back to its stockholders, and is now operated in its own name. The other companies went into the hands of receivers and to-day are struggling out of difficult situations caused by the general bankruptcy. The receivers of these companies are as follows:

Metropolitan Street Railway Company—Adrian H. Joline and Douglas Robinson, Receivers.

Third Avenue Railroad Company—Frederick W. Whitridge, Receiver.
42d Street, Manhattanville and St. Nicholas Avenue Railway Company—Frederick W. Whitridge, Receiver.

Union Railway Company of New York City—Frederick W. Whitridge, Receiver.

Westchester Electric Railroad Company—J. Addison Young, Receiver.

Yonkers Railroad Company—Leslie Sutherland, Receiver.

Second Avenue Railroad Company in the City of New York—Geo. W. Linch, Receiver.

28th and 29th Streets Crosstown Railroad Company—Joseph B. Mayer, Receiver.

Fulton Street Railroad Company—Gilbert H. Montague, Receiver.

The Metropolitan Street Railway Company now has pending before the Commission a plan of reorganization for its property, and, as stated above, the plan of reorganization of the Third Avenue Railroad Company is pending in the Court of Appeals on the Commission's Appeal from the decision of the Appellate Division.

APPRAISING CORPORATE PROPERTY

It has been said that the Commission, in approving issues of securities, demanded that there be ample property values behind the securities issued by public service corporations. The adoption of this policy made it incumbent upon the Commission to ascertain the value of the physical property of a company proposing to float new securities. This led to the inauguration of a series of appraisals of various corporate properties made by the experts of the Commission. These experts made inspections of the plant and physical property of several railroad, gas and electric companies. The law does not allow the capitalization of franchises except to such an amount as actually may have been paid to the city or state for such privilege. Therefore, these investigations were largely confined to an inquiry into the value of the physical property.

Such appraisals became necessary in rate cases as well as in applications for security issues. For instance, during the Commission's investigation of the 10 cent fare to Coney Island, it was necessary to make an appraisal of the physical value of the properties of the Brooklyn Rapid Transit System. This was a large and expensive work, but the Commission had it thoroughly done, and when its figures were presented in public hearings they became official evidence of the actual worth of the railroad system.

The reorganization proceedings of the Third Avenue Railroad Company and the Metropolitan Street Railway Company, with their applications for approval of proposed security issues, also compelled an investigation into the value of their properties. These investigations were brought to a conclusion during the present year. The Third Avenue appraisal was put in evidence at the hearings on the second reorganization plan. The Metropolitan appraisal will soon be introduced in evidence in the hearing on the Metropolitan reorganization plan.

The rate cases above referred to in the matter of the Queens Borough Gas and Electric Company, the Brooklyn Borough Gas Company and the Kings County Lighting Company also involved physical valuations which were used by the Commission in establishing rates for the Queens Borough Gas Company and in confirming the \$1.00 rate charged by the Brooklyn Borough Gas Company.

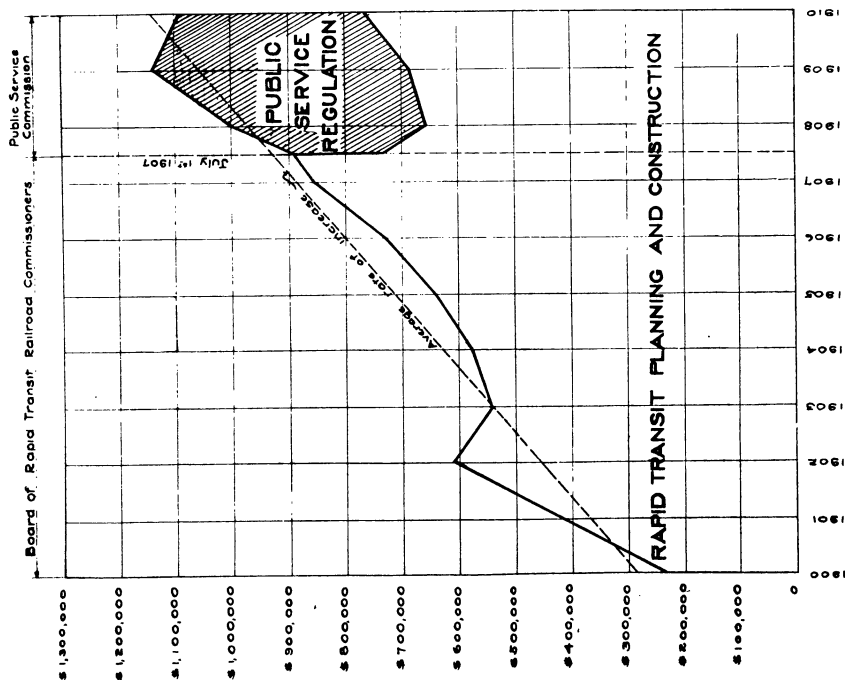
RAPID TRANSIT WORK

ASIDE from its regulation work, the Commission is charged by law with the duties formerly performed by the Board of Rapid Transit Railroad Commissioners in laying out and supervising the construction of rapid transit railroads. This work takes about three quarters of the time of the Commission and is responsible for more than 60 per cent of its total expenditures. In other words, while the regulation of corporations under the Public Service Commissions Law costs the public \$377,000 a year, the work of planning and building rapid transit lines costs between \$600,000 and \$700,000 a year. It is this large item which makes the total expenses of the Commission for the First District upwards of a million dollars a year. This has led to some public misapprehension as to the cost of a regulating commission. It should be borne in mind, therefore, that the cost of regulation due to the operation of the Public Service Commissions Law is but approximately one-third of the total cost of the Commission and that about two-thirds of that total cost is due to rapid transit work.

This work is performed under the provisions of a separate statute known as the Rapid Transit Act. Under this Act, the Commission decides where rapid transit lines shall be built and lays out routes and general plans, which must be approved by the Board of Estimate and Apportionment and the Mayor of the city and consented to by property owners owning a majority of the front feet abutting on the proposed route. If a majority of such property owners fail to give their consents, the Commission applies to the Appellate Division of the Supreme Court, which appoints commissioners to decide whether public interest requires the construction of the proposed roads. These commissioners report to the court, and their affirmative report, when confirmed by the court, is taken in lieu of the consents of property owners.

After getting the approval of the city authorities and securing the consents of property owners, or in lieu thereof the determination of the Appellate Division, the Commission proceeds to make detailed plans for the construction of the proposed rapid transit lines and advertises for bids. It may call for bids for construction and operation together or for construction alone, deferring the operating question until a later time. Before bids are received the Commission

COMPARISON OF COST OF PUBLIC SERVICE REGULATION AND RAPID TRANSIT WORK



APPROPRIATIONS

BOARD OF RAPID TRANSIT COMMISSIONERS

1900	\$ 246,300.26
1901	\$ 423,611.60
1902	\$ 613,500.00
1903	\$ 542,000.00
1904	\$ 576,000.00
1905	\$ 640,605.00
1906	\$ 731,160.00
1907	\$ 853,167.00

PUBLIC SERVICE COMMISSION

* 1907	\$ 850,167.00
1906	\$ 1,000,000.00
1905	\$ 1,137,500.00
1904	\$ 1,083,274.00

* Original appropriation of \$853,167.00 for year 1907 increased to \$930,167.00 for the Public Service Commission

prepares forms of contract, which are submitted for consideration at public hearings, and when adopted in final form are approved as to form by the Corporation Counsel of the City of New York. After receiving bids, the Commission enters into contracts with the successful bidders, and the Board of Estimate and Apportionment appropriates the money which the city is to pay for the carrying out of the contracts.

THE EXISTING SUBWAY

Under the Rapid Transit Act, the existing subway, the Hudson and Manhattan tunnels, and the Pennsylvania Railroad tunnels have been constructed. Private capital, that is, money furnished by the corporations themselves, was used in the construction of the McAdoo and Pennsylvania tunnels, but the City of New York paid for the construction of the subway. This subway, which is regarded as one of the transportation wonders of the world, was built in the main part under the supervision of the former Board of Rapid Transit Commissioners, but various extensions and improvements have been constructed under the supervision of the Public Service Commission for the First District, which succeeded the Rapid Transit Commission.

Its construction was undertaken in the year 1901. The main line was opened for traffic in October, 1904, and the extension to Brooklyn in the early part of 1908. The original contract for its construction in Manhattan and The Bronx was for \$35,000,000. With extensions and improvements, however, the construction cost up to June 30, 1911, was \$49,881,190.86.

This subway is under lease to the Interborough Rapid Transit Company, successor to John B. McDonald, the original contractor, who took the lease for operation as well as the contract for construction. The company put in the equipment, that is, tracks, power houses, signal system, rolling stock, etc., at its own expense. The company also built the Brooklyn extension at a cost to the city of about \$4,000,000. The actual cost of this extension, however, was very much greater, and the company states that it has spent more than \$10,000,000 in addition to the amount paid by the city for the extension. According to the company's figures, this investment, together with the amount spent in equipping the subway, aggregates more than \$40,000,000.

The subway embraces 26.33 miles of road and 85.31 miles of single track. This is an increase during the life of the Public Service Commission of 4.21 miles of road and 12.82 miles of single track. Its traffic has grown from 116,000,000 in its first year of operation to 276,704,796 for the year ended June 30, 1911. The operation of the subway with the present traffic pays handsome profits to the operating company, but under the terms of the lease all that the City of New York gets out of it is the rate of interest on its investment plus an annual sinking fund which at the end of the lease will have reimbursed the city for its expenditure. The interest rate is about 4 per cent and the sinking fund payment is 1 per cent annually on the total amount of city bonds issued for construction purposes. The lease runs for fifty years from the beginning of operation, with a privilege of renewal for twenty-five years.

THE BROOKLYN LOOP SUBWAY.

Following the completion of the existing subway, the first additional rapid transit work undertaken was the Brooklyn Loop Subway. This was contracted for by the former Board of Rapid Transit Commissioners in 1907 just prior to the organization of the Public Service Commission, which took over the supervision of the work. This subway runs from Park Row, Manhattan, starting close to the terminal of the Brooklyn Bridge, north under Centre Street to Delancey Street and east through Delancey Street to the Williamsburg Bridge over the East River. At Canal Street it has a branch connecting with the new Manhattan Bridge over the East River. It was designed to connect the various East River bridges, so that a loop operation to and from Brooklyn would be possible. This subway is about a mile and a half long and has four tracks throughout. When completed it will have cost about \$10,000,000. It is now practically completed with the exception of a section at the Park Row end, the construction of which was delayed by the erection of the new municipal building, the foundations of which had to be placed before work on the subway could continue. Work on this section was resumed this year, and it should be completed within another year. The Brooklyn Rapid Transit Railroad Company has made application for the operation of this loop subway, and if the city enters into a contract with that company under the general terms of the McAneny-Willcox report, the loop will become a part of the Brooklyn Rapid Transit Company's system.

THE FOURTH AVENUE SUBWAY

Plans for the Fourth Avenue Subway in Brooklyn had been made by the former Rapid Transit Commission, but were revised by the Public Service Commission, which awarded the contracts for its construction in May, 1908. Owing to litigation over the margin of debt limit of the city, which limited the amount of money the city could spend for rapid transit purposes, the execution of the contracts was delayed until October, 1909. On November 13, 1909, construction work was begun, appropriate ceremonies marking the breaking of ground, and the subway is now (September, 1911) about five-eighths completed. This subway runs from the Brooklyn end of the new Manhattan Bridge through Flatbush Avenue Extension, Fulton Street, Ashland Place and Fourth Avenue, Brooklyn, to 43d Street, a distance of practically four miles. It is a four-track subway throughout. The contract prices for its construction aggregated \$15,886,381.20. The construction cost of this subway, as well as that of the Brooklyn Loop Subway, is being borne by the City of New York. The Brooklyn Rapid Transit Company has offered to operate the Fourth Avenue Subway, and it will become part of the system to be operated by that company, if the contract contemplated by the McAneny-Willcox report is made.

City's Total Expenditure.

Up to June 30, 1911, the City of New York had expended \$71,-265,215.43 on rapid transit lines. Of this amount, \$54,120,510.82 was spent on the existing subway. Contract No. 1, which includes the subway north of City Hall, Manhattan, took \$49,881,190.86 of this amount. Contract No. 2, covering the subway south of City Hall and the Brooklyn extension, absorbed \$4,239,319.96 of the city's money. The balance of the cost of construction of the Brooklyn extension was borne by the operating company.

On the Brooklyn Loop lines (Manhattan sections) the city expended \$10,079,756.16. On the Fourth Avenue Brooklyn subway up to the date mentioned the expenditures were \$7,064,948.45.

THE TRI-BOROUGH SUBWAY

The next work undertaken by the Public Service Commission was the so-called Tri-Borough Subway. The Commission prepared plans for a new rapid transit line, uniting the three boroughs of Manhattan, The Bronx and Brooklyn. In Manhattan the line begins at the Battery, runs through Church and Vesey Streets to Broadway, from Broadway to 9th Street, from there to Irving Place and Lexington Avenue, and up Lexington Avenue to the Harlem River. Just north of the Harlem River the line divides into two branches, one on the West Side continuing as an elevated road up River and Jerome Avenues to Woodlawn Cemetery, and the other on the East Side, running through 138th Street, Southern Boulevard and Westchester Avenue, mostly as an elevated road, to Pelham Bay Park. This system is to be connected with Brooklyn either by tunnel or by the new Manhattan Bridge and linked up with the Fourth Avenue subway in Brooklyn, which is planned to extend from 43d Street in two branches, one running to Fort Hamilton and the other to Coney Island.

Another part of the system in Brooklyn is the Broadway-Lafayette Avenue Subway, running from the Brooklyn Loop Subway in Manhattan over the Williamsburg Bridge, through Broadway, Brooklyn, to Lafayette Avenue and back through Lafayette Avenue to a junction with the Fourth Avenue Subway at Fulton Street and Atlantic Avenue.

The Tri-Borough System as thus planned covers 47 miles of road and 144 miles of single track. The estimated cost of its construction is \$147,500,000, including \$25,000,000 to be spent on the Fourth Avenue and Brooklyn Loop sections. The estimated capacity of the line is 1,000,000 passengers per day, although, should the congestion of the new system approximate the congestion on the existing subway, it has been figured that the Tri-Borough will accommodate nearly 3,000,000 passengers per day.

In September, 1910, the Commission asked for bids for the construction and operation of this system by private capital, and for the construction alone with municipal funds of the Broadway-Lexington Avenue line in Manhattan, running from the Battery to the Harlem River, and the Broadway-Lafayette Avenue line in Brooklyn, together with the connecting link through Canal Street, Manhattan. No bids were received under the private capital form of contract. On October 27, 1910, bids for the construction of the sections mentioned were received from more than twenty bidders. The aggregate of the lowest bids was estimated at about \$85,000,000.

The Commission deferred action upon these bids, owing to negotiations which had been entered into with the Interborough Rapid Transit Company for the extension of the existing subway and elevated lines. That company offered to join with the city in the construction of subway extensions, agreeing to put in one-half of the money needed, the city to contribute the other half, and the company to receive a lease for the operation of the lines. The Commission conditionally favored this proposition, but, as the Board of Estimate and Apportionment must appropriate the money to be spent by the city for such purposes, conferences between the two bodies were arranged. The Board of Estimate and Apportionment appointed a committee of three, of which Borough President George McAneny was chairman, the other members being Borough President Cyrus C. Miller of The Bronx and Borough President George Cromwell of Richmond. This committee held a series of conferences with the Public Service Commission through the Winter and Spring of 1911, during the course of which representatives of the Interborough Rapid Transit Company appeared and explained and amplified their proposition.

While these conferences were going on, the Brooklyn Rapid Transit Company made a proposal to the conferees to operate lines practically the same as those of the Tri-Borough system, providing the city would build them, and providing that the elevated lines of the Brooklyn Rapid Transit Company should be linked up with that system for the purposes of operation.

The conferees made their report to the Board of Estimate and Apportionment on June 5, 1911. This report, known as the McAneny-Willcox report, provided for a division of the proposed subway lines, embracing many more than were contained in the original Tri-Borough system, between the Interborough Rapid Transit Company and the Brooklyn Rapid Transit Company. In general, the Interborough Company was awarded the lines in Manhattan and The Bronx, with necessary connections in Brooklyn, and the Brooklyn Rapid Transit Company was awarded the principal lines in Brooklyn, with a new line giving it entrance into Manhattan and to the business district of Manhattan as far north as 59th Street. Under the terms of the report, each company was to be offered the lines awarded to the other in case one company refused to accept. The Brooklyn Rapid Transit Company accepted and the Interborough Rapid Transit Company refused. The Board of Estimate and Apportionment thereupon voted to proceed with the construction of the Lexington Avenue line by city money, with the idea that the Brook-

lyn Rapid Transit Company would become the operator thereof under the terms of the McAneny-Willcox report. This action was taken July 21, 1911, and the Public Service Commission immediately proceeded to award contracts for certain sections of the Lexington Avenue route.

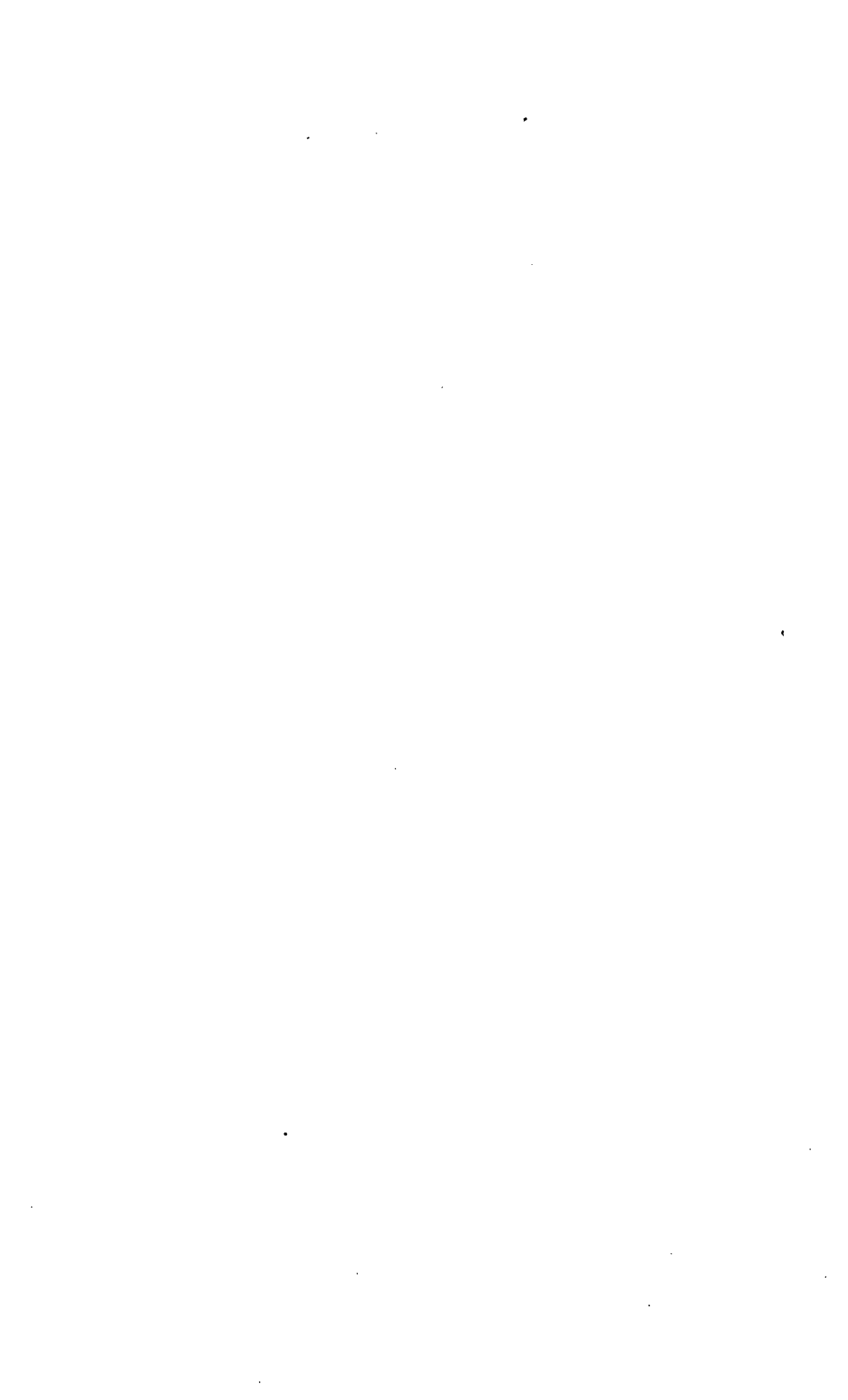
Seven of these contracts were awarded by the Commission and six were approved by the Board of Estimate and Apportionment. One for Section 5, lying between 14th and 26th Streets, awarded to the Metropolitan Contracting Company of Boston, is still pending in the Board of Estimate and Apportionment. Four of the others, covering Sections 6, 8, 10 and 11, were awarded to the Bradley Contracting Company of New York City, which has executed the contracts and has started in on the actual work of excavation. Section 6 is in Lexington Avenue, between 26th and 40th Streets; Section 8, between 53d and 67th Streets; Section 10, between 79th and 93d Streets, and Section 11, between 93d and 106th Streets. Section 12, between 106th and 118th Streets, was awarded to the Oscar Daniels Company of New York City. Work on this section has not yet been begun.

Section 7, between 40th Street and 53d Street, was awarded to Charles H. Peckworth, but he failed to execute the contract, and the Commission decided to readvertise for bids for the construction of this section, together with Section 9, lying between 67th and 79th Streets, for which only one bid had been received. Advertisements for the required public hearings on the forms of contract for these two sections began in the latter part of August, and it is expected that bids for their construction will be invited before the end of the year.

Other sections of the Lexington Avenue route will be let from time to time as the engineers of the Commission complete the work of making the necessary changes in the plans. As originally planned, the Tri-Borough Subway called for a height of fifteen feet above the base of rail. During the negotiations, the Commission decided that this height was excessive and authorized the reduction of the cross section to a height of 13 feet 2 inches from the base of rail and a somewhat less width than was provided for in the original Tri-Borough plans. These changes were accepted by the Bradley Contracting Company, to whom the awards were made for certain sections named above, as their bids, and in fact all bids on this work, were made on a unit price basis, so that the figures for excavation, steel work, etc., would apply just as well to a subway with a cross section a foot or two smaller than the cross section contemplated in the original plans.

Ground was broken for the Lexington Avenue Subway on July 31, 1911. Chairman William R. Willcox of the Public Service Commission turned the first spadeful of earth with a silver spade provided for the purpose. Appropriate ceremonies marked the event, which was witnessed by a large crowd of people. The scene was the intersection of 67th Street and Lexington Avenue. During the ceremonies addresses were made by Chairman Willcox, Comptroller William A. Prendergast and Borough President George McAneny.







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